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Roman Emperor Commodus thought he was the Roman version of the Greek Hero Hercules. Modelling the Pegaso miniature begins on page 37.

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Despatch

Readers' Letters and E-mails

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● Letters and e-mails are not, under any circumstances, altered or severely edited; however, they may be shortened because of space limitations. The Editor is not necessarily in agreement with the views expressed in published readers' correspondence.

● Letters and e-mails to the Editor intended for publication should be addressed to:

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We need some simple kits

Dear Ken,
I am writing in response to the letter in 'Despatch' in January, *Military Modelling*, regarding old kits.

I am 62, my eyesight is not what it was and I suffer from arthritis in my hands. Recently I bought the 1:72 scale Academy Opel Blitz kit, as I needed a second cab because I model wheeled vehicles. I think the kit cost about £1 more than the Italeri kit.

The kit is excellent, but I found the small parts a bit of a problem. The Italeri kit is perfect for me and I think the old simpler kits are a good idea. I would like to see some new simple kits coming out as the old ones like Airfix are getting on now. I know some very simple snap kits are out now, but I have not tried them yet. Some simple, cheaper kits would keep the youngsters interested as I think the more complicated kits can only put them off if they make a mess of them.
Roy Wilde

An awful lot in the boxes

Dear Sir,
It was interesting to read Simon Scales' recent letter regarding the high pricing of modern kits, along with the suggestion that manufacturers re-release some of their older models at reduced prices.

Whilst I agree that today's models are very highly priced, there tends to be an awful lot in the boxes. I recently picked up Dragon's 88mm gun, which is priced at around £30. The box is jammed full of a huge number of sprues, with brass etch and alternate metal barrels. This is an extremely complex kit, and I know it will take me about a year, on and off, to complete it. In terms of value for money, that's a great deal of entertainment, especially compared to an evening at the cinema.

If you are looking for cheaper modelling options, then take a look at Italeri's range. Their 1:35 scale Sherman is currently available for under a tenner, and if it's something more modern and hi-tech you're looking for I'd suggest Dragon's 1:72 scale 'Armor Pro' range, which are also priced at around £10. I've just completed their new *SdKfz 251* which is a marvel, beautiful crisp mouldings, a huge parts count which builds into a kit that in my opinion is better than many of the 1:35 scale kits waiting to be re-released. This kit even comes with etched brass clamps for the small arms!

Although the prospect of the budget re-release of older kits sounds appealing, there are a lot of options for today's budget-conscience modeller.
Steve Archbold

Re-issue of old kits?

Dear Sir,
A re-issue of old kits may sound a good idea (*MM* Vol.39 No.1 2009) but I feel it would not work.

When I go to shows I still like to buy old kits, if they are cheap. But if they were re-issued they would not be sold at a lower price.

My point is that old kits were good and I still like to build them, but they are not even close to being good if you put them alongside most modern kits.

Buying old kits is good fun because you can spend a long time trying to bring them up to modern standards, but I would not spend a lot of money on something that is 25 or 30 years old.
Gareth Shinton

Verlinden fan

Dear Sir,
Like Simon Scales I am also a Verlinden fan and still have and use for reference an original copy of *Verlinden Way* 'Volume 1'.

I agree with his comments regarding the cost of modern kits. I have been making kits since the 1950s and the price even then was cheaper compared with today, although I appreciate the quality is vastly superior.

I know today's people demand top quality and aftermarket products, etc., but I am sure there are a lot of people like myself and Simon who would be quite happy with re-releases at reasonable prices which could be improved by our own skills and tastes if required. I know it is nice to have internal details, engines, etc., but a lot of this is lost on the completed kit anyway. Could not a basic kit and a separate kit of internal details be released then we would all be happy.
Bob Hewett

Assistance from the trade please!

Dear Sir,
As you will see from my address I am far away from the UK and quite often have problems getting hold of particular model kits. I do not have a computer, e-mail or Internet access, so I wonder if I could use your columns to ask for assistance please?

I wish to contact a dealer who can supply 1:35 scale model kits manufactured by Messers Cromwell Models to myself. Payment can be made by cheque drawn on a UK bank.

A catalogue or similar would be much appreciated. Many thanks in anticipation.
Cliff Greensitt
PO Box 353, Gonubie 5256 SOUTH AFRICA

*When all else fails – you can always try **Military Modelling's** 'Despatch' column! Anyone who can help Cliff please contact him direct. Ed.*

Younger model builder

Dear Mr Jones
As a younger model builder myself I agree with what Simon Scales wrote in ***Military Modelling***. The models that are made now are very accurate, but almost totally out of the reach of model makers who like to make them for fun. I enjoy building models with my Dad, 1:35 scale tanks are the best, and I have seen the models that my Dad made with my Grampy when he was a boy.

I would love to be able to build some of these models myself, but something like a Tiger tank or a command car are £20 or more each!

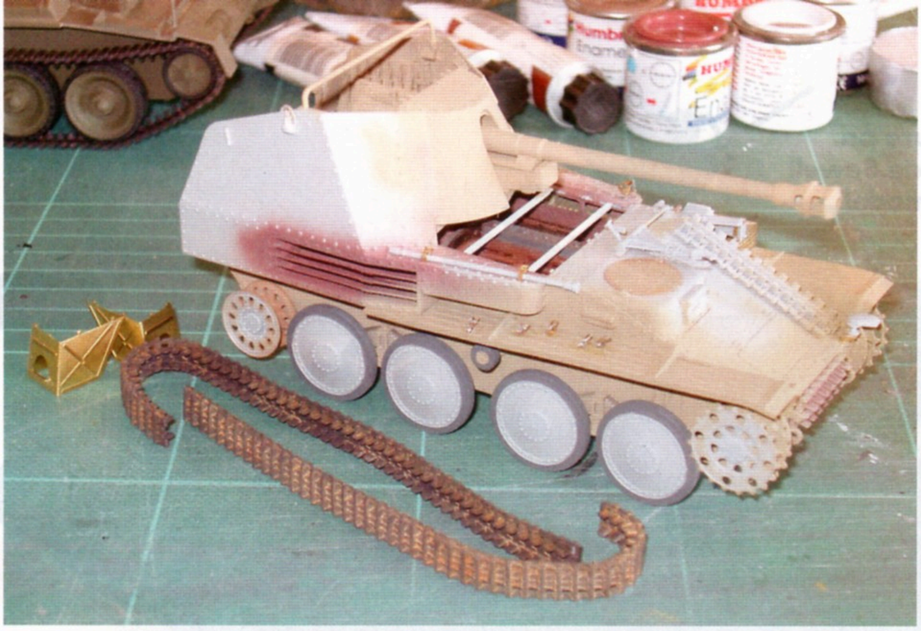
Why are models so much money these days when we could make them from recycled plastic? Wouldn't it be great if all the plastic milk bottles could be remade into plastic models for us to build!

We, my Dad and I, like reading ***Military Modelling*** as we always get good ideas for new painting skills. I hope I can make models as well as some of the ones in the books when I'm older. Best Wishes,
Joe Harrold (aged 10).

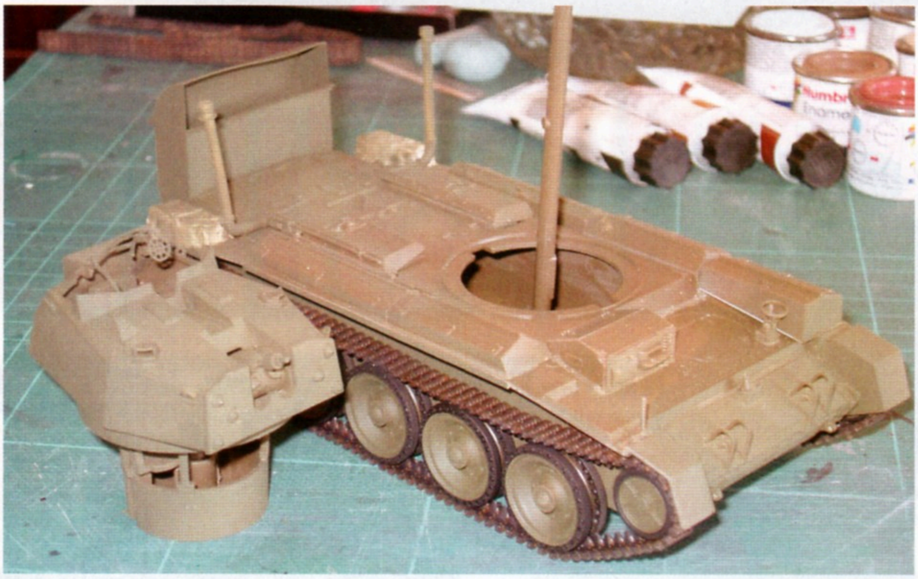
Radios

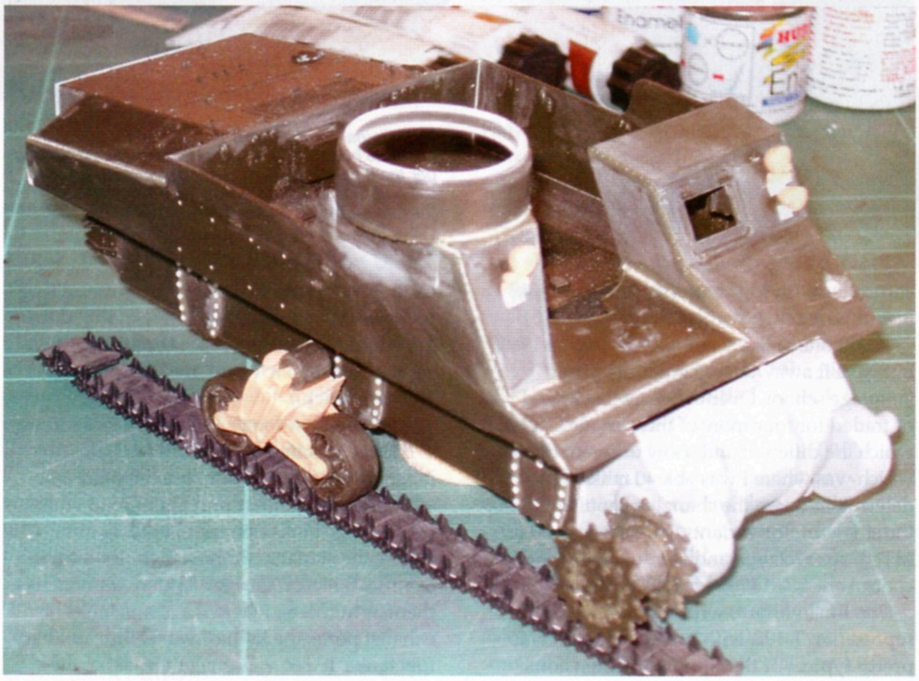
Dear Ken,
I recall reading (in the letters page, I think) a short piece about older kits, compared to newer ones. This got me thinking about my current projects, namely Dragon's *Marder* 3M, a new release, the Italeri Crusader AA, a revamp of an old kit, and the Italeri Kangaroo, definitely an old kit! I've attached a couple of photos of them in their current state of unfinished! I decided to build the Kangaroo as a prelude to building the Academy Priest, following Steve Zaloga's excellent (as usual) article on the Priest. As you can see, I've decided to back date it to an early production version, drawing heavily on the spares box. The Crusader has benefited from some Fruilmodel tracks, but the *Marder* is straight out of the box. Despite the age differences, I'm still not sure which I've enjoyed the most, but I seem to have come to a halt on the Kangaroo for lack of information on the interior.

This finally leads me onto the suggestion for an article. In numerous builds and reviews, your authors mention radio fits, the recent lack of a radio in the new Dragon M3 75mm GMC, (on my shopping list!) springs to mind from your recent review! As I don't have any reference for this kind of thing, I wondered if it would make a suitable article for you to publish. From my point of view, a focus on British radios would be good, (I'm trying to focus



Peter Hayward sent in these photos of three of his 1:35 scale models currently under construction. Dragon's new Marder 3M the Italeri Crusader AA Mark II – a revamp of an older kit - and the Kangaroo from the same manufacturer.





on British used subjects, even the *Marder*), but based on the bias towards German armour, then covering this side of the conflict would also need to be done, either in the same article or in an accompanying one. Then of course there are the US radio fits, then the Russian, maybe Italian, Japanese? I think you get the picture!

I hope this gives you food for thought!
Kind regards,
Peter Haywood.
PS. If Steve Zaloga would like to write a good book on British Shermans, then put me on the order list!

Good idea! Steve has just completed a book on the Sherman in US service, whether he could be persuaded to do one in British service is another matter and I refer you to his remark at the top of page vii in Armoured Thunderbolt, The US Army Sherman in World War II. *The radios are a very good idea and would be an ideal project for a keen aftermarket producer. Ed.*

Retailers help the potential modeller

Dear Ken,
I have read with interest the letters about the recently reissued kits that have been appearing in model shops recently. Whilst I applaud the re-release of many of these kits I do wonder at the pricing structure that, we as consumers encounter. But I also feel that hobby retailers also need to help the potential modeller.

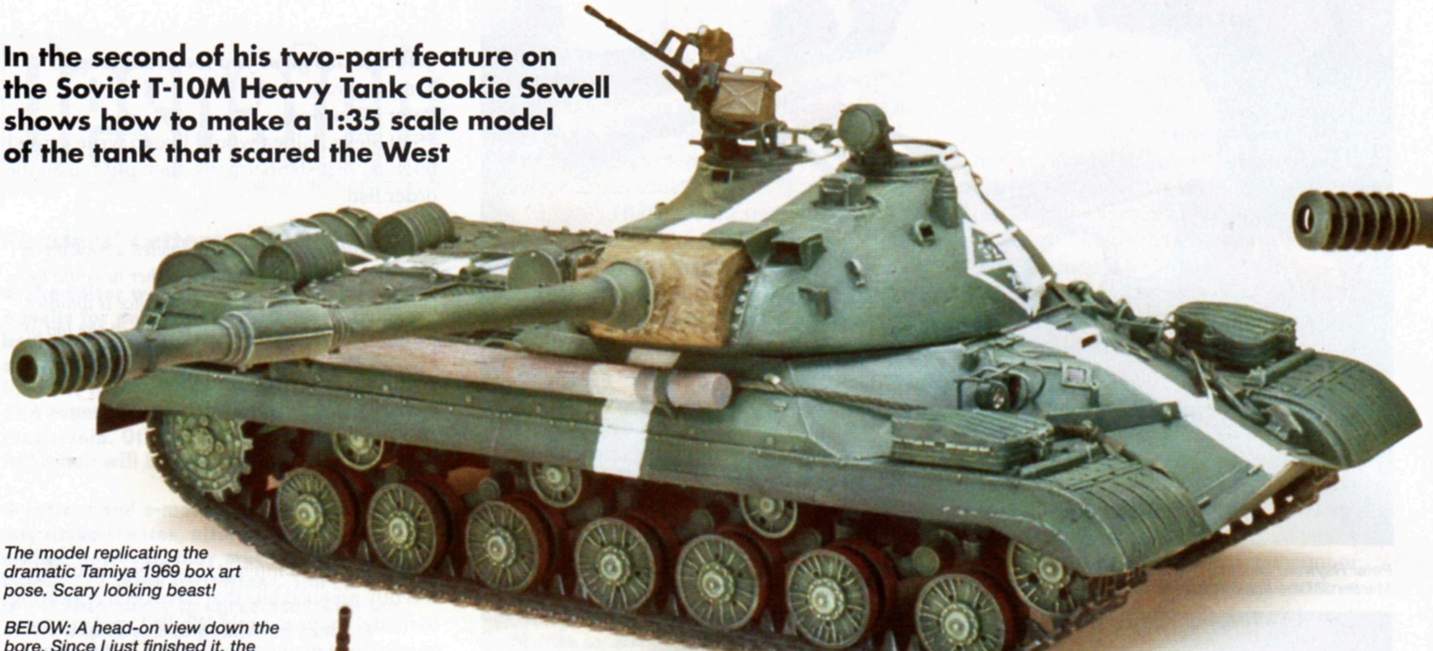
Despite the current poor currency exchange rates, which can badly affect the pricing of models, I would like to see a different pricing structure for these older models. If the price was lower shops online and high street could steer younger modellers to these easier models. I also realize that the model companies need to make a profit even during these trying economic times as we still need new state of the art models and these are funded from the sales of these models.

My first 1:35 scale model was, if I remember correctly, the Tamiya M10 in their motorized range. What a great model it was, I built it in a day, installed two 'C' cell batteries and off it trundled round the room! It was an easy model to build, it was a tank and it moved and what more could a young boy want? These days the hobby has got more accurate better detailed and more expensive, the latest 1:35 scale models can cost the equivalent of a tank full of fuel, the part count can be astronomical and for the 'new' modeller it could all be a bit disconcerting. I recently witnessed a 'young' lad leaving my local model shop with one of Dragon's Panzer Is. Now I know it is a good kit, but did he have the patience to assemble those tiny individual track links, or would he have been better buying the Matilda?

Many years ago Airfix and Matchbox had their own methods of dealing with the models' complexities, although it would be nigh on impossible for the model companies to introduce this scheme now. Maybe our shops could help steer the new modellers in the right direction? Of course this is how the companies can help with a slightly different pricing structure as cheaper models may tempt the buyer and generate return custom and those old hands can buy older kits and spend a small fortune on the aftermarket goodies.

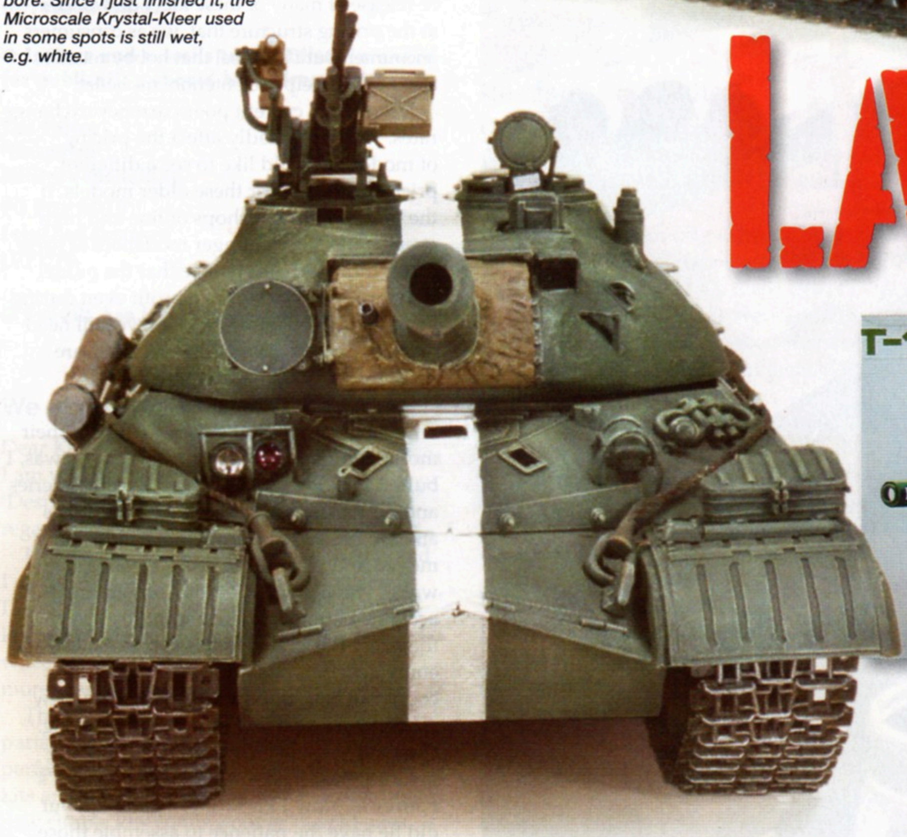
I really do not think that my letter will change the policy of these large companies, but if one company can see the potential we may introduce a whole new generation to the fun of building models.
Brian O'Donoghue

In the second of his two-part feature on the Soviet T-10M Heavy Tank Cookie Sewell shows how to make a 1:35 scale model of the tank that scared the West



The model replicating the dramatic Tamiya 1969 box art pose. Scary looking beast!

BELOW: A head-on view down the bore. Since I just finished it, the Microscale Krystal-Kleer used in some spots is still wet, e.g. white.



LAST OF

T-10 JSIII
RUSSIAN
HEAVY TANK
ソビエト陸軍スターリン重戦車
TAMIYA

The original Tamiya box from 1969 and a pretty accurate picture of a T-10B in Invasion markings and per the 95th TTP in Plzen. The painting is lovely, but too bad the mouldings inside were little changed from the first effort of several years earlier.

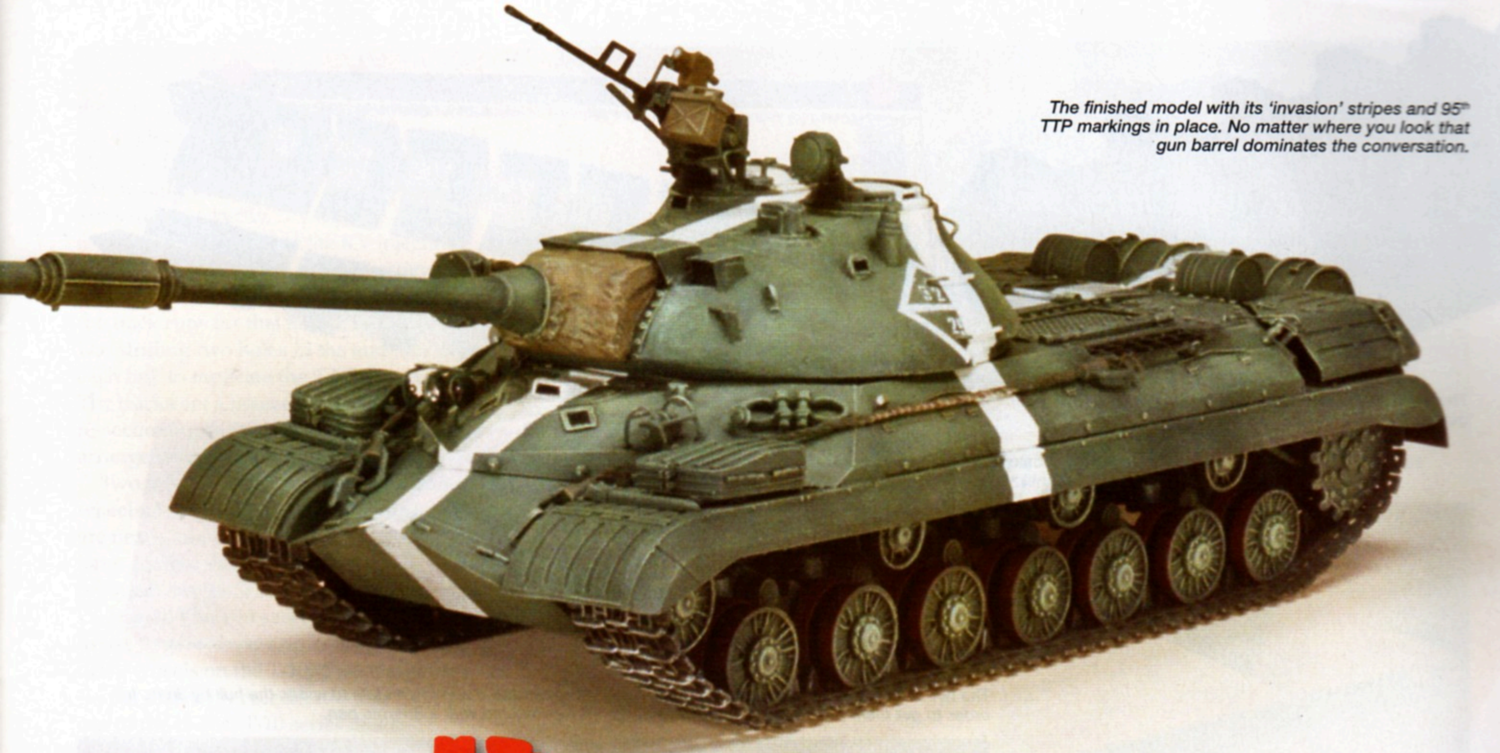
Unlike many other vehicles, the T-10 has been ill-served as a model in any scale. Part of the reason was the high security given to it under Soviet times, which meant that any coverage was only based on furtive views at a handful of parades, and part of it was, as we now know, the relatively few tanks in overall service.

In the mid 1960s Tamiya came out with a nominal 1:35 scale kit of what it called the 'T-10 JSIII' tank. Back in those days, Tamiya was willing to modify its moulds as new information came in and this kit went through three or four different evolutions, but most involving motorization packs and rearrangement of the rear engine deck. It came in single, dual and dual remote control versions. The last variant retailed for ¥1,000 yen (about $7.98 US in 1969) and had dual motors and a 'remote control' – a hand-held controller with four batteries and about six feet of wire.

I built one of the 'Cadillac' versions in 1969, but gave it away when I graduated from language school. Over the years I swapped or traded for four more of these models, all of which are different and show different details, which was where I was able to make this determination on the changing moulds. I think the single-motor variants were catalogued as MT109 for ¥750 yen and the dual motor remote control one as MT209 for ¥1,000 yen.

The final variant, which appears to represent a T-10B with bore evacuator, was pretty typical of that time. Its dimensions overall were pretty close, but as it was the top of the line Tamiya armour kit of those times, it had a lot of opening hatches, metal parts, and even a bright red clear plastic searchlight cover (which my research shows was only used on the B model after factory rebuilding to fit the TNP-1 night sight; the model does not come with even a representation of that sight other than a 'lump' in front of the loader's hatch.)

But it is a 'ten-footer' – e.g. only looks like a T-10B at a distance of about 10 feet! Close up it bears little resemblance to an actual T-10 of any sort other than its number of road wheels (7), stowage bins (4 per side) and big gun. Where the actual tanks have two, 150-litre fuel external tanks on the rear fenders, Tamiya has them as mufflers; where the actual tanks have exhaust ports, the kit has two 90-litre auxiliary fuel tanks. It also was one of the last of the 'rubber band' track kits whose drivers have fine grooves to prevent track slippage when running. The turret was also undersized and the sides have large grooves where they should be vertical to the fender edges.



The finished model with its 'invasion' stripes and 95th TTP markings in place. No matter where you look that gun barrel dominates the conversation.

THE BREED

The box art also changed, and in its last release in 1969 the box art (calling it a 'T-10 JSIII' to hedge any bets) showed a T-10B in the markings of the 95th Heavy Tank Regiment in Plzen during Operation *Dunay*. The artist seems to have had access to actual photos as it is very well done and *does* show a T-10B with its 12.7mm DShK AA machine gun and the features found on an actual tank; alas, the kit inside is the same one from before with the wrong features. For those who don't care, or are into nostalgia, right now any of these kits can be found on e-Bay for prices of around €35-40 Euros each (there don't seem to be any left in the US at the moment.)

There are two kits of the tank offered today that I know of – both in resin and white metal kit from Navigator of Russia. The T-10A/B is kit number 35009A and the T-10M is number 35016A. Both sell for 2,250 rubles (about US $83) but can be found in the West at some outlets. (Model Point USA offered the kits for $129.95 each). But all sources currently list them as either out of production or not in stock.

As Navigator posts unpainted photos of the assembled kits they look reasonably good, but Russian modellers comment that Navigator kits can be somewhat difficult to assemble (one was referred to as *Kub Rubrika,* which is pretty obvious even to non-Russian speakers as to the writer's intent!) They also mix media with what appears to be turned aluminium barrels, some photo etched parts, and glue-together type cast white metal tracks.

Research: Finding The Real T-10M

There are a large number of photos of the handful of remaining T-10 tanks on the Internet, but they are very frustrating as no single source has posted enough clear photos of one single tank to produce an accurate set of plans or build a totally accurate model.

Part of the reason is that we have *eight* basic tanks out there to sort out, and unlike the T-34 or even the KV series there are not enough dedicated historians or modellers to track down 'which is which' and which features are indicative of which factory.

The Leningrad 'Kirov' Factory produced the T-10 (Object 267), T-10A (Object 267-1), T-10B (Object 267-2), and T-10M (Object 272). The Chelyabinsk 'Kirov' Factory produced the T-10 (Object 730), T-10A (Object 730A or 731), T-10B (Object 730B) and T-10M (Object 734). To add to the confusion, changes were introduced on the production lines or in rebuild factories without any indications as to which tanks received them – or even when.

Most of the preserved tanks are in pretty bad shape, as they appear to have been in the process of being scrapped when somebody set them aside for preservation. Most curious of all are a set of about six tanks found in the Museum of the Northern Fleet which were 'retrofitted' to look like KV-1, KV-2 and IS-2 tanks!

Most appear to be either T-10B or T-10M types, but as the two do not share many common detail features and there are the obvious differences among the vehicles from the two factories it really complicates things. The Armoured Vehicle Museum at Kubinka has relatively intact and homogenous to type examples of a T-10 and a T-10M, as well as some of the prototypes – Object 266, an LKZ tank prototype derivative of the T-10 with a two-axis stabilizer and T2S sight; and Object 277, a T-10M fitted with the 130mm M-65 gun from the IS-7. The Central Army Museum in Moscow also has a T-10M in reasonable shape.

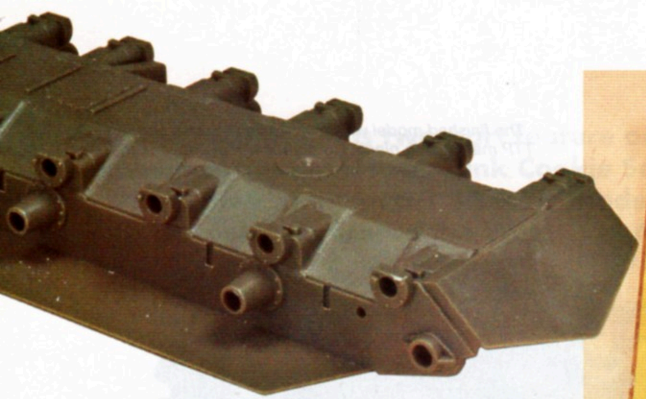
Most of the details modellers 'live for' are thus confusing at best. These include details on the engine deck, screening over the various louvres and grilles on the engine deck, placement of the auxiliary fuel tanks (and if carried or not), antiaircraft machine gun mounts, turret fittings, driver's hatch, headlights, marker lights, gun mantlet and fittings – basically everything modellers want good clear info on is obscured. There are some relatively detailed plans of the tanks out there, as well as a reproduction of numerous pages from the operating manual for the basic T-10. None agree with each other and the manual is unfortunately for a T-10 and of little use in building a T-10M once you get past the suspension.

If one keeps that in mind and does not have a major problem with building what is only going to be a reasonable approximation of a T-10M, then the project is worthwhile; if you decide you want a spot-on replica of one specific tank, plan on waiting for a good, long while. I opted for 'Column A'. I am really starting to seriously dislike the Kotin Bureau.

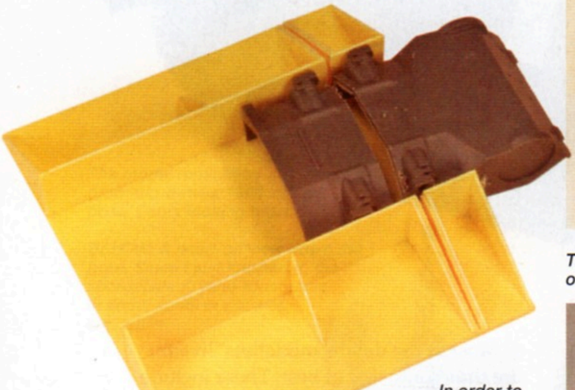
Building The Model: The Lower Hull And Suspension

Since there was nothing salvageable from the Tamiya T-10 kits, I decided to start with two Trumpeter IS-3M kits. These are a good basis as the IS-3M was the beneficiary of the T-10 design work, as when parts were developed for the T-10 series, which were reliable, they were retrofitted to the IS-3 series tanks during nearly constant upgrades.

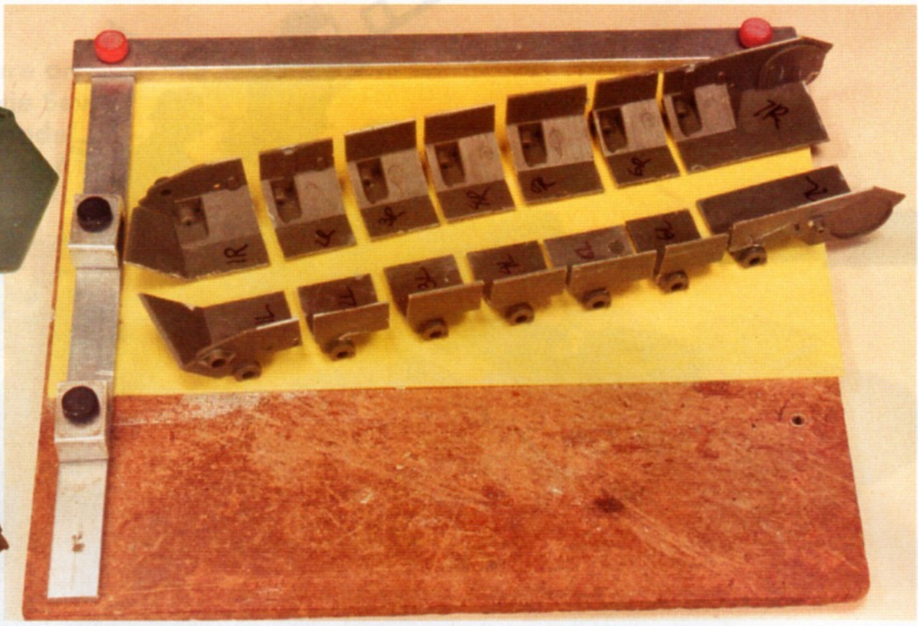
The only major drawback was that the IS-3M tracks were too narrow to use for the T-10M – 650 mm vice 720-730 mm (sources again vary). I noticed that the tracks with the KV tank series by Trumpeter scaled out to 730mm (20.8mm) with the right pitch, and the only major differences was that the web pattern for the T-10M was slightly different and that the ends were pierced for extended end connectors. This was due to the fact that the T-10 tanks were so heavy they needed about 150mm long extensions in some terrain, so the links were pierced to mount them with



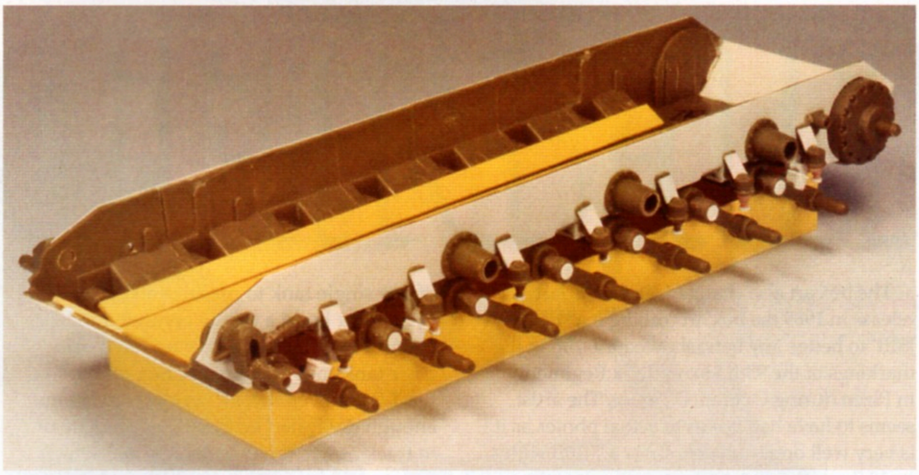
The lower hull of one of the IS-3M tanks, which was quickly found to need major surgery. So…



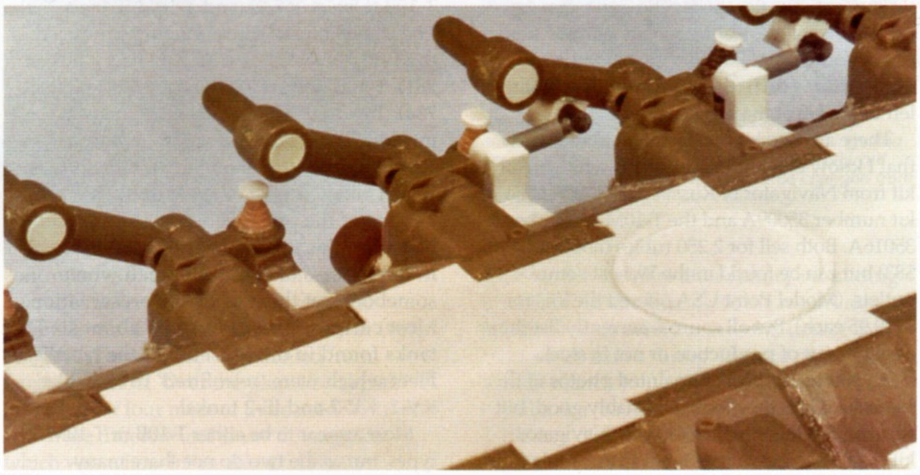
In order to get square cuts, and since the parts did not fit in a normal modelling mitre box, I made one from 0.040in sheet, which worked perfectly.



The two hulls were cut into no less than 14 parts, all separated down the middle to widen the hull by 3mm. In order to get them put back to rights, each segment was labeled with a Sharpie pen.



ABOVE: The hull after assembly and having the suspension added. As can be seen, few parts from the IS-3M kits went unmodified. BELOW: A close-up of the suspension arms from the inside, showing the oddball shock absorbers on the first two road wheel arms. The turret will go right on top of the disk in the belly.



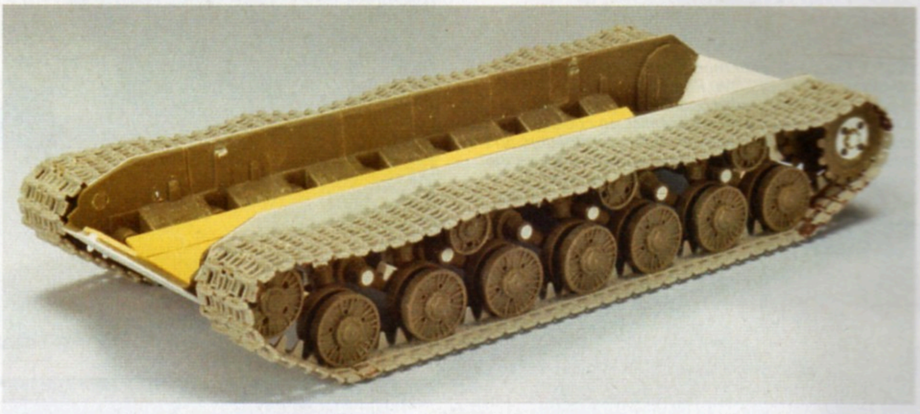
simple nut-and-bolt fittings. This resulted in a reasonable approximation of the actual tracks.

The first thing one discovers with the T-10 is that while it *looks* like an IS-3 that is the major limit of familial resemblance. The T-10 is wider, higher, and longer and has all major angles and shapes changed from the IS-3 design. Case in point: the T-10 hulls are 100 mm (about 3 mm in scale) wider than those of the IS-3. Therefore, if you use the hulls from the IS-3 kits, you have to not only resection them to get seven road wheel stations you also have to cut them in half to widen the chassis as well.

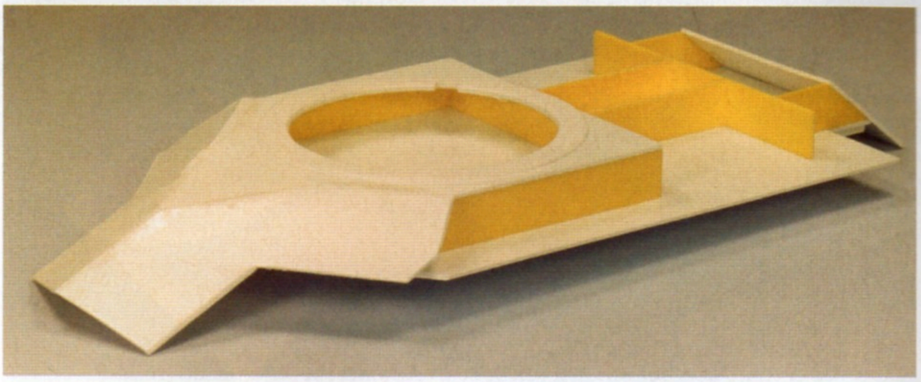
Since the IS-3M hull is too broad to fit into a standard modelling mitre box, I had to create a cutting jig from scrap 0.040 (1mm) sheet styrene to get straight cuts. Laying this out with a machinist's square, I managed to get a very accurate jig and could then measure and cut the parts out. Before starting the cuts, I removed all external details from the sides of the hull which projected out from the upper sides, such as the return roller mounts, due to overhang, they then needed 0.040 scrap shims on each side to keep the hull centred in the jig. Once the hull segments were cut, I numbered them with a permanent marker to get them together in the right order.

Using 1/8in x 0.040 and 1/8in x 0.010 sections of Evergreen strip, I used these laminated pieces as a 'keel' of sorts to keep the parts in alignment when reassembling them. (For some reason beyond my ken the model companies love to have injected moulded parts 0.050 (1.25mm) thick. Go figure!) This was mounted to a sheet of 0.010' (.25mm) styrene that formed the new floor of the hull. I also added new strengtheners inside the hull from scrap 0.040 styrene to hold the hull in alignment, as well as another reinforcing section on the floor. A new lower glacis was added from 0.020 (.5mm) styrene and a new rear section from 0.040 styrene to replace the now too narrow rear plate. New sides were added from 0.010 sheet cut to fit and then the carefully removed return roller mounts were refitted along with the final drives and the mud scraper mounts.

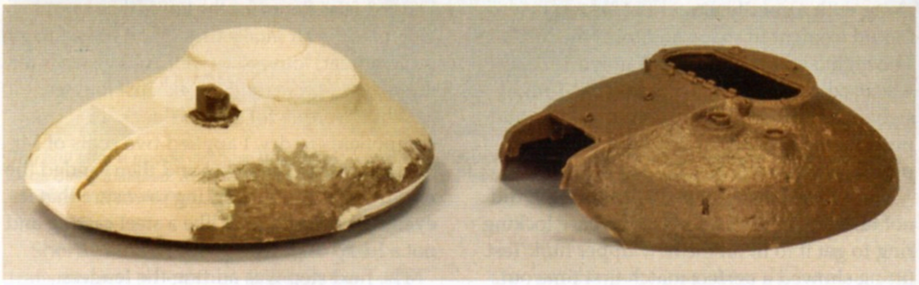
The IS-3M used simple cast bump stops for the road wheel arms – ah! Once again, but not so with the T-10M. This tank used beefier castings with broader top webbing as well as springs with striker plates on the bottom rather than simple rubber washers on the IS-3. I had a number of jounce stops from Tamiya's M48 and Sergeant York kits, and they sacrificed for the cause here. All openings for bushings and fittings were sealed, and the 1st, 2nd and 7th road wheel stations received very heavy-duty combination piston and lever action shock absorbers. All of these were added and



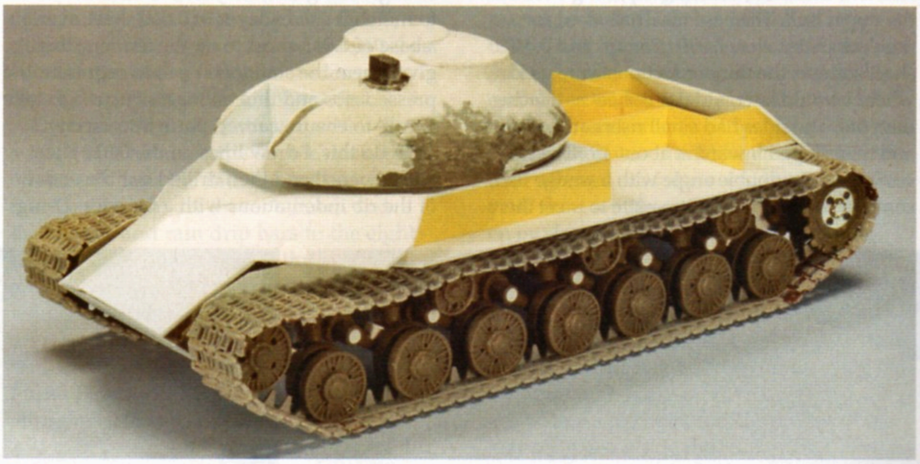
The assembled lower hull with the modified KV tracks in place. These are easy to graft with a razor saw, thus keeping their moulded-in sag intact and suitable for other tank models.



The basic form of the upper hull shape. The reason for the odd baffles is to permit some elements of the engine deck such as the exhaust louvres to be countersunk and still provide stiffness to the model.



The initial work on the T-10M turret. Starting with the IS-3M turret seen on the right, it was cut down, reshaped and puttied to match the correct profile. The night sight head is too high and will be removed and fixed later in the build.



A test fitting to ensure the parts are in alignment. Even now this can be seen to be a big beast.

then the hull was placed on a stand where the angles of the road wheel arms could be aligned. The T-10M sits higher than the IS-3M by only a hair, but I wanted to ensure the arms dried correctly.

I borrowed one set of the KV injection moulded tracks from a kit and retrieved the leftovers I had from the KV-3 project to make the track runs for this tank. The hardest part was drilling two holes in the end tabs of each link to replicate the T-10M style tracks. The tracks are a breeze to work with and re-sectioning them to fit a new return roller arrangement with the proper sag was simple.

Two modifications had to be made to the wheels. For whatever reason, the idler wheels are nearly identical to the road wheels, but have a larger diameter hole in them. This required careful drilling to enlarge them, and I was glad I had 10 sets of road wheels spare to use to get two sets right. The centres of the drive wheels on the T-10M were also different – a flat disk with bolt details, vice the domed cap of the IS-3M/T-10 series tanks.

The tracks were installed and checked for both fit and straight alignment from the sides of the tank (e.g. fore and aft trueness). Once I was satisfied with that, I set aside the lower hull and went to work on the upper hull.

The Upper Hull Section And Turret Base

I decided to do the base forms for the upper hull and turret together, and then go back and finish each section off later. This would permit me to get the turret geometry aligned correctly so it would not bind or warp later on in the build.

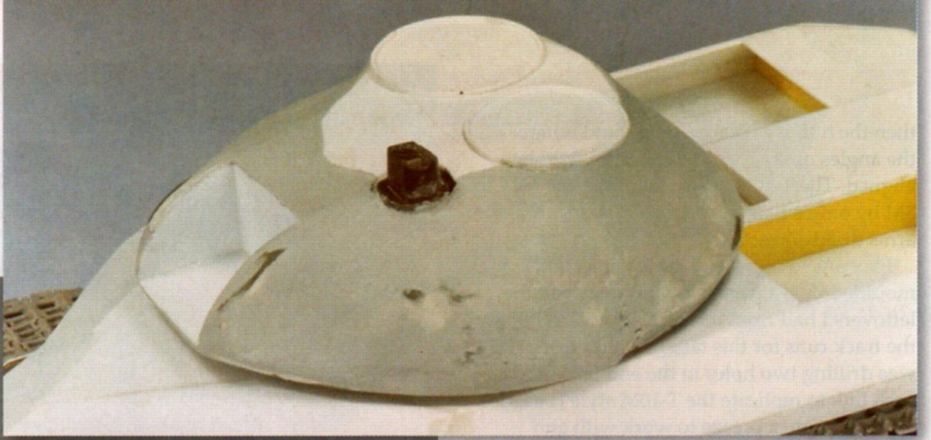
The hull starts with a base plate cut per the plans that I had (one from *Modelist-Konstruktor* in 1990 and one from *Postwar Soviet Heavy Tanks* in 1996) and got a plate, which looked pretty close. I then added two rails underneath it from 0.040 x 0.080 strip (1mm x 2 mm) to act as locating ribs to ensure a centred fit on the lower hull. The next step was to add risers to the upper deck 1mm lower than the actual height (to allow for the hull roof) and also gapped to permit installation of sub-assemblies later such as the exhausts, radiator intakes, air intake, transmission cooling vent, and of course the turret.

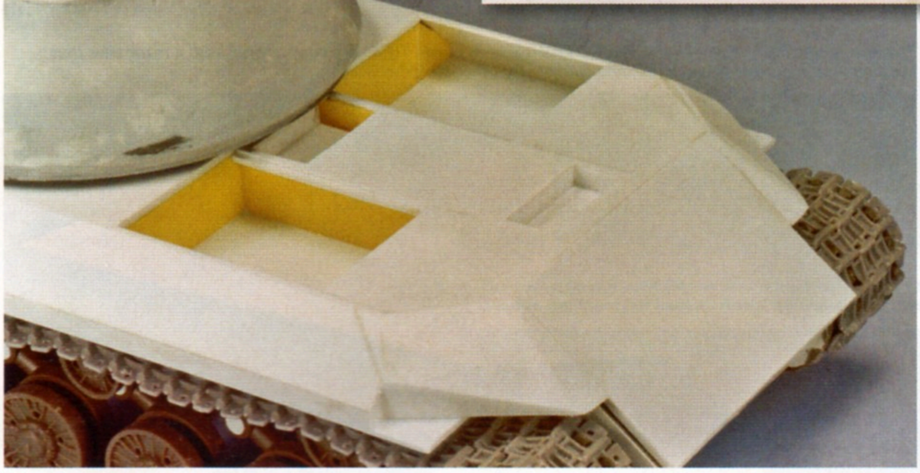
The turret race was also added – this was a 0.040 base with a ring of 0.015 (.375mm) sheet on top of it as a race and spacer between the turret base and hull roof. Both were notched for locking lugs for the turret. (This is a good idea, as just like all kits it permits the turret to rotate with no ill effects if the model or the base it is sitting on suddenly tilts - or you hit a bump while driving with the model in a car.)

The centre section of the rear plate was simple, as it was just a rectangle of 0.040 styrene sheet. The other end was more problematic. I first cut paper patterns until I had the dimensions and angles correctly laid out for the upper glacis, and then cut them in plastic. The glacis was made out of 0.060 (1.5mm) sheet to ensure stiffness, and was cut slightly oversize and then trimmed up once in place to permit custom fitting for accuracy. Small braces were added to hold the sections securely in place from the backside (not visible in the photo). The driver's hatch base was added, with the odd jog to the right being the only problem area to work against here. Once the upper hull fit relatively smoothly to the main hull, I then went to the turret.

The T-10M turret is similar in size and plan form to that of the IS-3, but that is the limit of their shared heritage. The T-10M has two periscope sights penetrating it, a vision port where one would not expect it, an antenna base, separate hatches for the commander and loader, a flatter profile and a much steeper rear and side profile. Before assembling one of the IS-3M turrets, I removed the centre section of its roof, added in new formers to match the profile of the T-10M as well as a bulkhead at the rear, new decking, a re-profiled lower rear section with the 'step' used on the T-10, and then the new roof section with hatch rings. Once those parts were in place and the base cemented to the top, Squadron White Putty was used

RIGHT: The turret after more putty and two coats of Mr Surfacer 500. BELOW: Part of the engine decking in place. The front centre opening is for the engine air intake, the rear one the transmission cooling vent, and the big ones to the sides are for the radiators and the exhaust louvres. Note the rather awkward way the rear edges of the hull and sides come together.





along with a goodly amount of Testor's Liquid Cement to shape and form the turret. The night sight head from a Tamiya T-62 kit was used to represent the basic TNP-1 night sight head. After three sessions of sand – add putty – smooth – set aside to dry the turret profile was correct.

Since I used a complete IS-3M turret, it did not take any modifications to the base locking ring to get it to fit on the new upper hull. Test fitting showed a perfect match first time out.

Once I was happy with the fit of the upper hull and the turret, I turned to plating over the upper hull. The base materials used for the deck plates were 0.030 (.75mm) and 0.040 sheet styrene; the thinner sections were used where I would later add 0.010 sheet as a facing material. The sides had small risers at the base and then sloped inward at about 45°. The rear sections had a double angle with a wedge coming from the rear centre plate to meet them. I added false floors for the boxes that would later take the air intake (front) and transmission cooling (rear) louvres, as well as large wells for the radiator grilles and the exhaust louvres.

While waiting for the rear deck components to dry, I applied two coats of Mr Surfacer 500 to the turret and then sanded the rough spots down, working to ensure that it eventually would look like a steel casting and not a lump of putty.

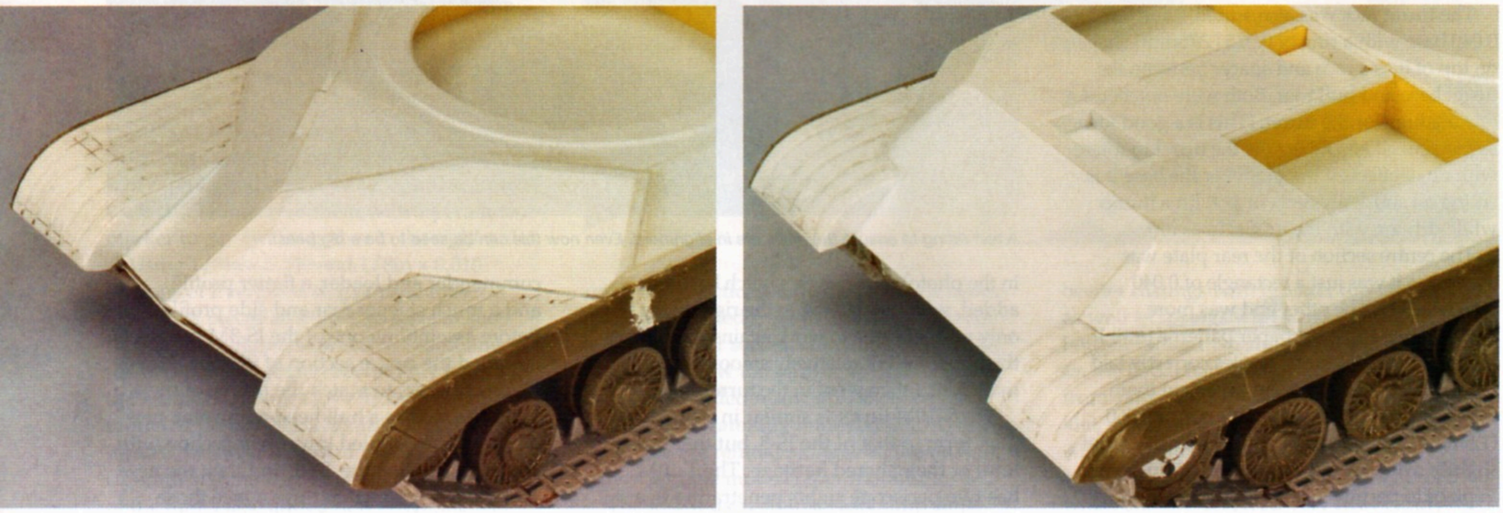
The next step was adding the fenders. As these are pressed steel components with strengthening ribs, they had to be created to match. I used a layer of 0.010 sheet over a base of 0.015 sheet to do the fenders; this gives them the standoff depth to represent the pressed ribs and thin enough structure to take a 'roll' to ensure curved parts fit correctly.

To do this, I drew lines on the 0.010 sheet with a pencil and then drilled out the ends of the rib indentations with a pin vice. Using a very sharp new Olfa knife blade (these Japanese blades seem to be as sharp as scalpel blades, but as durable as X-acto ones, a good combination for general modelling use) I connected the outside edges of the drill holes. This is not easy, it took me two tries to get acceptable results, but it does look the part, Once installed I gave each 'rib' a liberal coating of Testor's Liquid Cement, which softened the hard edges of the cuts.

I did the front fenders first and then the rear fenders. While they were still drying I added the fender skirts. These were modified from the two sets that came with the IS-3M kits by trimming their base edges to match the T-10M fender line and extending the front section by splicing them together. Details were then added to the fenders from bits taken from the IS-3M kits and scrap plastic strip. Also added at this time were the stowage bins and their covers.

A Very Oddly Shaped Hull

T-10s, like their IS-3 forebears, have a very oddly shaped hull, which looks something like a shield with flared top when viewed in cross-section. To hide this, as it would give away the heavy armoured protection secret for the upper section of the hull, there are 'false' sides which join the edge of the folded top with the fenders, hiding the bend and also creating room for eight stowage bins. After cutting the sides to rough shape from a sheet of 0.010' styrene, I then used a scribing tool to add the bin covers to the sheet before adding it to the hull. I used an 8in Hold'n'Fold to get a clean bend of 45° in the sides, and then cemented them to the sides of the hull.



ABOVE LEFT: The front fenders in place along with the fender skirts. The pencil lines can still be seen even though smudged by Tenax 7R and Testor's Liquid Cement. ABOVE RIGHT: The rear fenders in place, which were created in the same manner as the front ones – thin layer of plastic with slits cut in it over a heavier layer.

Engine Deck - Lots of Louvres

The engine deck needed six sets of louvres – the engine air intake, the transmission cooling vent, the radiator intakes, and the exhaust louvres. All but the latter were easy to do with the simple 'strip on strip' method. This requires using a calculator and a good set of measurements to determine the size and thickness of the parts – you need the total number of louvres and the number of gaps divided into the width of the part to compute. For this vehicle the first four sets wound up being 0.010 louvres and 0.030 gaps. The next step is cementing together 0.060 x 0.010 (1.5mm x 0.25mm) strips with 0.030 x 0.030 (0.75mm x 0.75mm) ones and then running them through a NWSL Chopper or similar tool. The louvres are then attached to a sheet of 0.020 sheet with 0.010 edging and sanded smooth when dry.

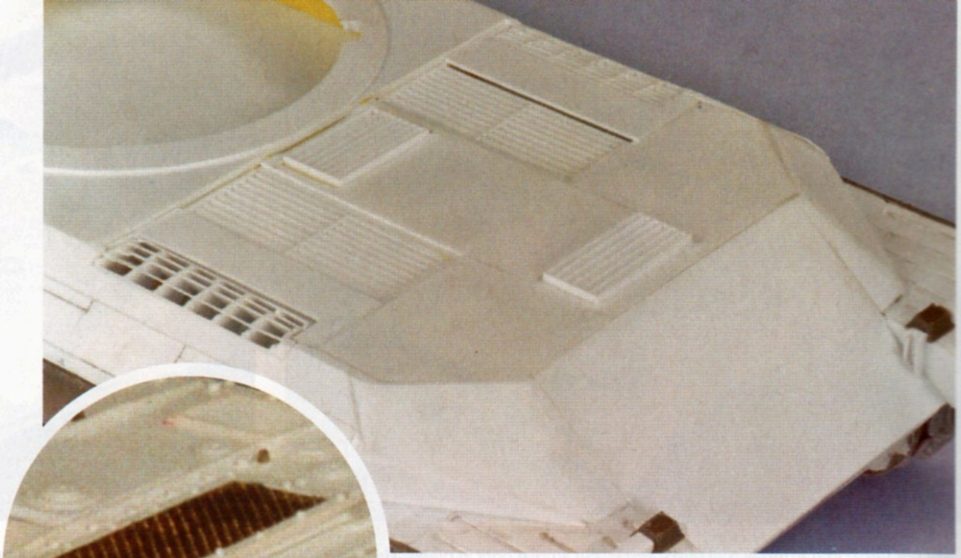
The first and second louvres (intake and cooling grille) stand proud of the engine deck and have combings around them, so these I boosted up with scrap plastic until they sat about 0.040 clear of the deck. The radiator louvres, on the other hand, have heavy mesh covers over them so they had to be let down into the deck about 0.010 to permit the mesh material to fit flush with the deck.

The major problem set with the engine deck was the exhaust louvres. The T-10 series tanks were one of the first two tanks in the Soviet inventory (the other being the PT-76) that used what the Soviets called 'ejection cooling'. Instead of a fan, like most conventional tanks, ejection cooling uses the exhaust pressure to create a draft that pulls cool air through the radiators and then blows the heated air out of the tank with the exhaust. To this end it requires large plenum chambers inside the engine compartment under the radiators to get this effect to work correctly. The external results are large, exotic-looking angled louvres, which permit the efficient outflow of air.

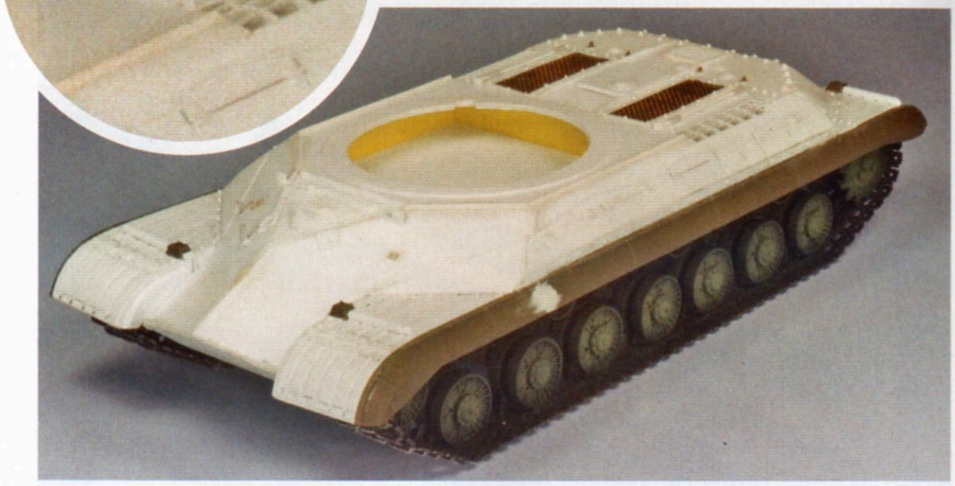
Of course, being a Kotin design, this means the T-10 cannot use simple, rationally designed louvres, but rather something, which looks done by a modern artist. Each louvre has 24 ports in it, equidistant in width, but varying in depth. After much thought and two prototype attempts, the solution I came up with worked this way.

First, I laid out a series of scribed lines on a sheet of 0.010 styrene sheet. There were seven lines equally spaced for the lateral face of the louvres; differentiating widths were then placed at right angles to them for each individual louvre. Then I added seven ribs to each section laid out from 0.015 x 0.060 strip. Once dry, I then proceeded to sand down the ribs until the rib height and angle looked correct and then cut it from the section with the Chopper. Once all sections were finished, I carefully assembled them to get the arrays needed for each side. These were then installed in the remaining wells in the rear engine deck.

These last louvres were very fragile and several repairs were required before the model was completed. Once in place and dry they need to be gently sanded down to match the profile of the hull. Now some T-10s apparently had mesh grilles over the exhausts and some did not, but after all this work I decided to built a 'not'.



The rest of the engine deck louvres in place. The radiator louvres will later get a brass mesh screening over them.



The hull after a goodly amount of detailing, to include the driver's hatch, rear mesh grilles, outside skin, and side skins being installed. Bolt heads made from sections of Plastruct hex rod in different sizes have now populated the engine deck as well.

Shortly afterwards I noticed that the transmission air exhaust grille on the T-10M was asymmetric. I very carefully cut off a bit of the left side of the louvres and added a false end bar from 0.010 strip, and then after skinning out the engine deck with 0.010 sheet I added the new combings to the louvres, thus hiding the fact that I, um, goofed…

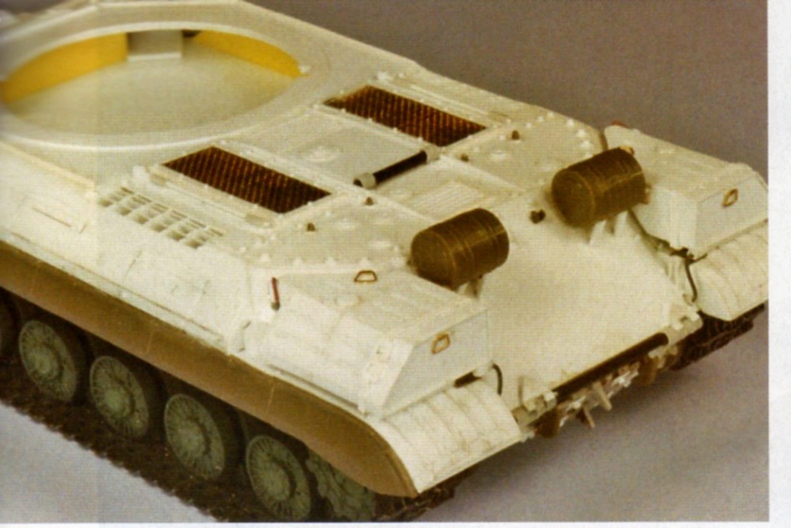
Detailing the hull continued with adding bolt heads to the engine deck, the meshwork over the radiator louvres from fine brass mesh, the driver's hatch and the fittings and rain drip bars to the eight stowage bins on the side of the hull. When I got to this stage, I masked off the parts that would be used to attach the hull sections together and painted the lower half of the hull and the underside of the upper half. I used Floquil RLM 73 as a base overshot with their Hunter Green railroad colour, and then painted the tracks flat black. I did lightly weather the outside of the tracks with Silver Leaf Rub'n'Buff to show wear, and then sealed the hull halves together.

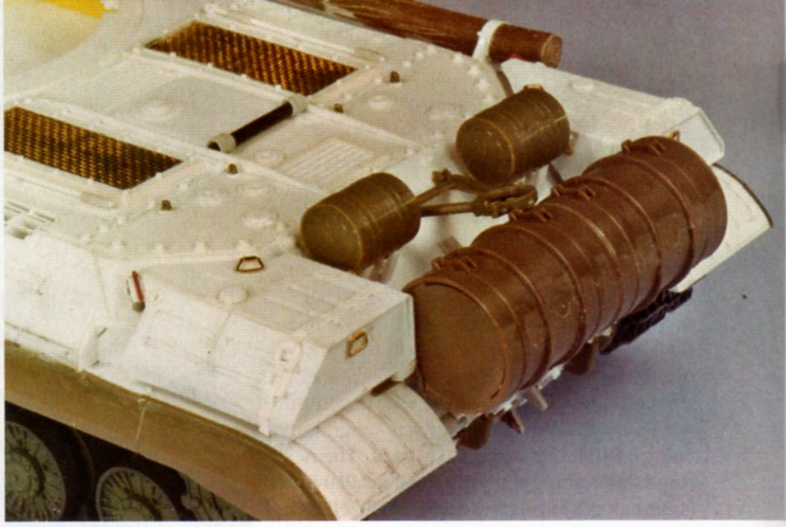
I then added the rear hull details. The engine deck received the main engine access hatch, filler ports for the various fluid tanks, lifting bolts, hinges, rub bars, and torsion bar springs. The rear edge of the hull received the heavy duty hinge and attachments used to permit it to open wide during maintenance. Two spare track shoes were added as well as the rear tow hooks to the lower rear plate.

External Fuel Tanks

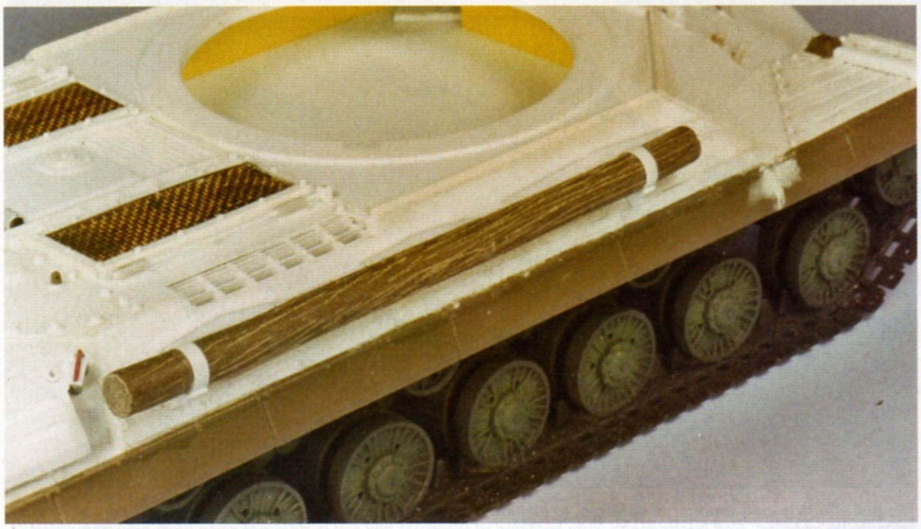
The next things to go on were the external fuel tanks. These are conformal, but with about a 75-100mm gap between them and the rear of the hull. They also, as with all other things T-10, apparently come in three different designs: flush end, recessed end, and flush end with stamped reinforcements. I picked 'Option B' and, after two tries, got a set I liked. Construction was much like the fenders with their recessed reinforcements, but here I used 0.040 sheet for the underlay. These are held on by strapping over the rear section of the fenders and with either bolts or slip pins at the front. I used the apparently later version, which seems to use a pad attached to the old bolt mounts and an L-shaped slip pin to lock them in place. Lifting handles came from an old On the Mark brass set.

The tanks feed into the lower ends of the rear plate just inside the fenders, but have a small breather tube, which connects to the top of the hull. I added the former from Verlinden 0.021 rubber hose and the latter from fuse wire. After that I attached the BDSh smoke pots high on the rear plate (as per photos of what claimed to be actual T-10M tanks – as usual there were three or four different options from photos as to where they went and how they were attached) and the mounts for the IS-3M travel lock in between the pots. The travel lock, being that of a T-10, of course is different, but was easily modified from the IS-3M one by a small plastic fillet.





ABOVE LEFT: The external fuel tanks and BDSh smoke pots in place. The rear hull hinges and the spare track links can also be seen here. ABOVE RIGHT: The nearly complete rear deck with the auxiliary fuel tanks now in place. Note that the travel lock can no longer lay flat and now rests on the fuel tanks.



The unditching log in place. Plastic is very easy to use to replicate wood – distress it by dragging a razor saw along its length, spin it on a razor saw at the ends to create 'rings' and then sand down lightly to remove 'fuzz' and add the attachment bands.

Since the T-10 series of tanks were fuel hogs, the Soviets eventually added the standard 200 litre auxiliary fuel tanks to the rear of the hull. Here they mounted them low on the rear plate and left little 'wiggle' room for the tanks. I took some time fitting the tanks (borrowed from a Tamiya T-72 used for a previous project) and got them to fit as per the prototype with a bit of finagling. I then added the travel lock.

The T-10M carried an unditching log (which is removed, chained to the tracks, and used to pull the tank out of sand, mud or snow if it gets bogged down) on the right side of the hull, but while the mounts can be seen photos of tanks with the log in place are few. I therefore had no major problems fitting it with an ex-T-72 kit log, distressed with a razor saw and fitted with proper attachment bands. The log sits just above the four right-hand stowage bins, so I got the feeling the log has to come off to get to the kit within.

Turning to the front end of the tank, I added the headlights – one of each, white light, infrared, and white blackout light with shroud – to the glacis and then added the protective guards from 0.017 rod. Modified Trumpeter towing shackles were added (they needed fittings, not 'magic' attachment points) along with the front fender stowage bins. These used reinforcements that stood proud of the surface, not inlaid, so I used a combination of 0.010 Micro-rod and Evergreen half-round rod to replicate them. I then added the four corner marker lights, again donated by the IS-3M kits.

Just before I went onto the front details and the weld beads I added the combing around the front hull roof from 45º angle strip. Alas, this came from a Dutch company whose name I did not get and do not know if they are still in business, but it did a perfect job of forming the hard edge at the top of the hull.

Weld Beads? Modellers' Bane No Longer!

One of the major problems faced by detailers and scratch-builders over the years has been the replication of weld beads and other small details. Most of us have come up with systems that work, but they tend to be tedious and a lot of work for what may be little gain. Or they look right in regard to texture, but out of scale on the model.

For many of us there is now a very useful solution on the market from Archer Fine Transfers – 'Surface Details 2.0'. The original was a brave attempt at easy-to-use weld beads, casting marks, casting numbers, tread plates, etc., but as they were dry transfers they were unfortunately too thin to make an impact. I used them with some moderate success, but only if I could use three or four sections on one spot to build up enough for a dry brushing session to 'bite' on the weld.

The new ones are now waterslide versions, and as such are much thicker and more accurate in scale. There are currently 16 different styles offered and they cover rivet heads, worldwide casting marks, three types of weld beads, wood patterns for truck running boards and beds, and non-slip grids. I used one of the standard weld beads, Set 6, for the massive welds used to assemble the T-10M.

Since they are waterslide transfers – decals – and much of the surface I was going to have to cover had been puttied or otherwise roughed up, not a good surface for adhesion, I first painted all of the weld bead line locations with Future (e.g. Johnson's Kleer, or any other acrylic floor wax) to give them a smooth surface. I then cut the sections to

SURFACE DETAILS
Archer
FINE TRANSFERS
$14.95
SURFACE DETAILS #7
VERSION 2.0
TOUCH IT
SURFACE DETAILS #6

The secret to getting fine details – the original 13 sets of Surface Details from Archer Fine Transfers. The set in the middle – No. 6 – provided the weld beads for the T-10M.

length and after soaking in 'wet water' (water with a drop or two of dish detergent to make it more suitable for decals) I applied the weld bead to the model. I then used a setting agent and once dry overcoated all of the weld beads with another coat of Future.

Overall the results were stunning – since the product is black, it stands out very easily against the unpainted kit. Not all of the weld beads on the T-10M need this level of treatment, but those that did were amazing in their final effect after painting. I did find out they are currently rather linear – they will not bend in an arc around objects like the edge of the turret roof, which had to have old-fashioned built-up putty and Mr Surfacer beading added. But I think sooner or later the great crew with Woody Vondracek at Archer Fine Transfers will solve even that one!

Finishing The Hull

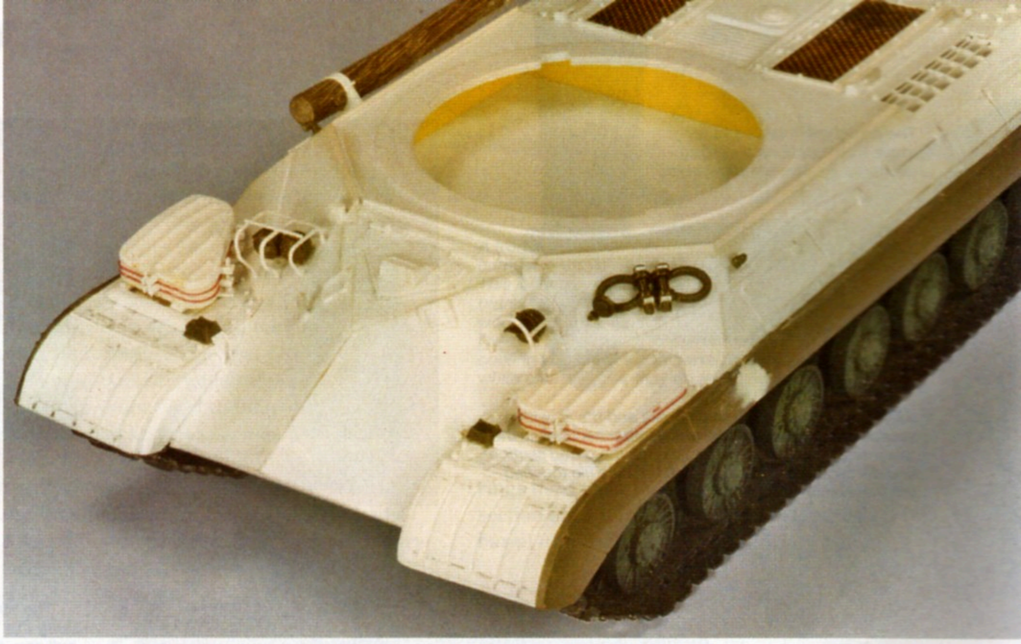
Once the weld beads were in place, all that was left was to add the final details to the front of the hull, which had to wait until the weld beads were done. These included the tow cables, the front tow hooks, and the upper and lower splash shields. The upper set is pretty common to all Soviet tanks and serves to keep the driver from drowning when the tank plunges into a water obstacle that does not require fording equipment. But it is the lower shields – mounted directly on the edge of the lower armour plate – which caused so much mystery (and misery!) with the T-10 series tanks.

These shields are simply thin sheet steel panels held in place on the front edge of the armour plate by hinges. Unfortunately, they are also convenient places for the unwary or the sloppy to step. Stepping on these plates causes them to bend. The result when viewed from the front is an apparently very odd 'egg tooth' shape to the front of the glacis – dutifully copied in every set of plans from the 1950s as well as the Tamiya kits. I left mine straight so the difference could be seen.

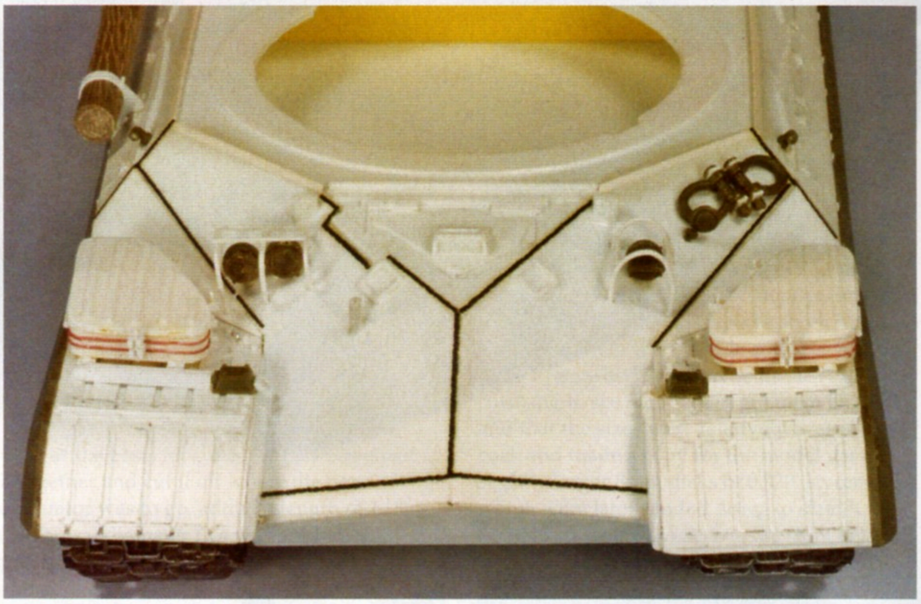
The very last parts added to the hull were the rear mud flaps. Some tanks also had front mud flaps but the one photo I found of a 95th TTP tank showed no such fittings, so I added only the rear ones. They were fender width and about 250mm in scale depth, held on with a reinforcing strip and six bolts.

Details On The Turret

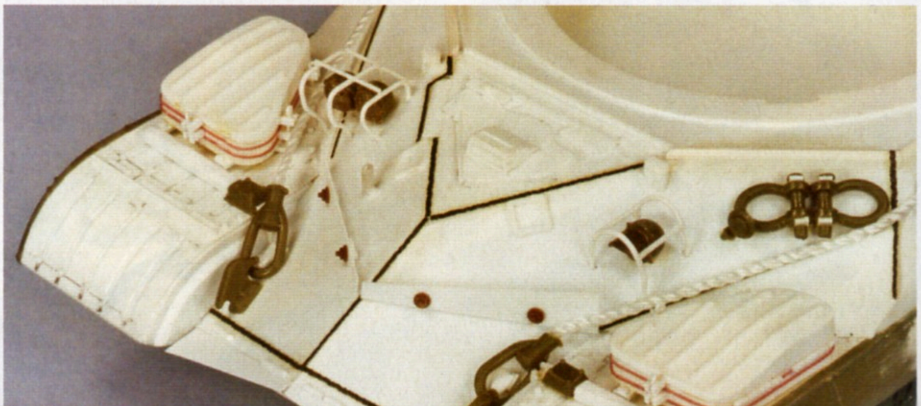
I set the model up so the gun and mantlet could be built separately and then attached to the turret. The mantlet was simply a few odds and ends such as the breech from an Italeri M47 (used because its taper matched the collar where the gun projected through the

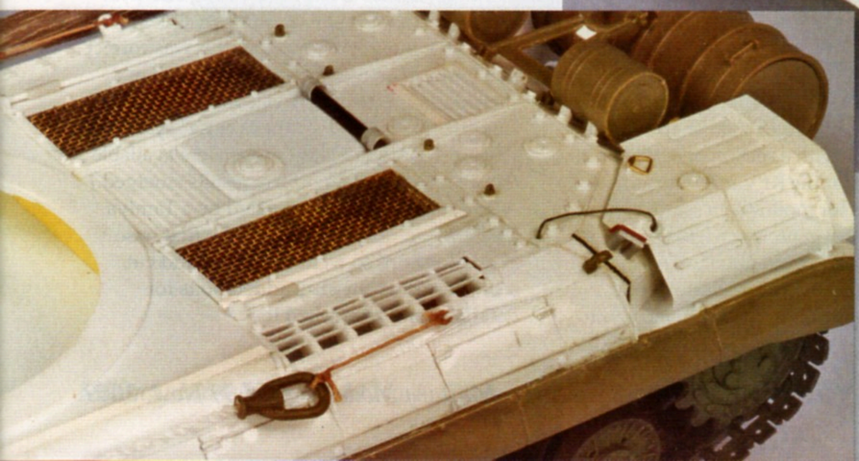


The front of the hull with all details in place that could be added prior to the weld bead. Believe it or not, the light guards were freehanded and fit the first time out!



The bow of the tank with the weld bead detail in place. The T-10s, like the IS-3s, were assembled from very heavy plate, but used electro-slag or electric arc welding and while the beads were thick they were generally neat. The AFT set was perfect for this.

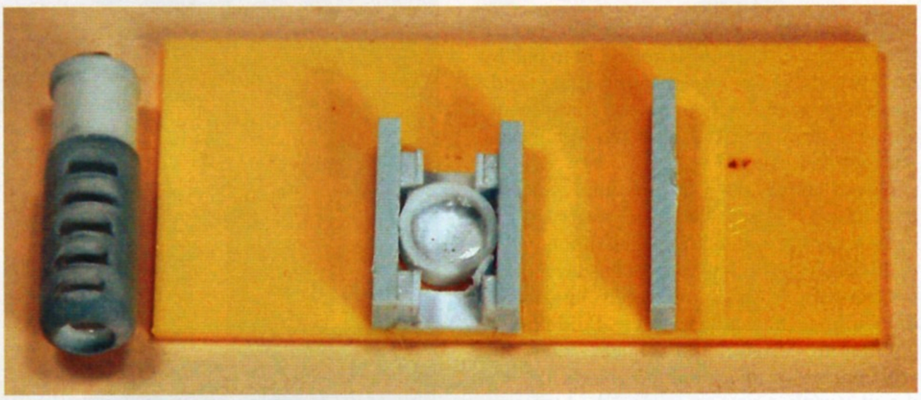




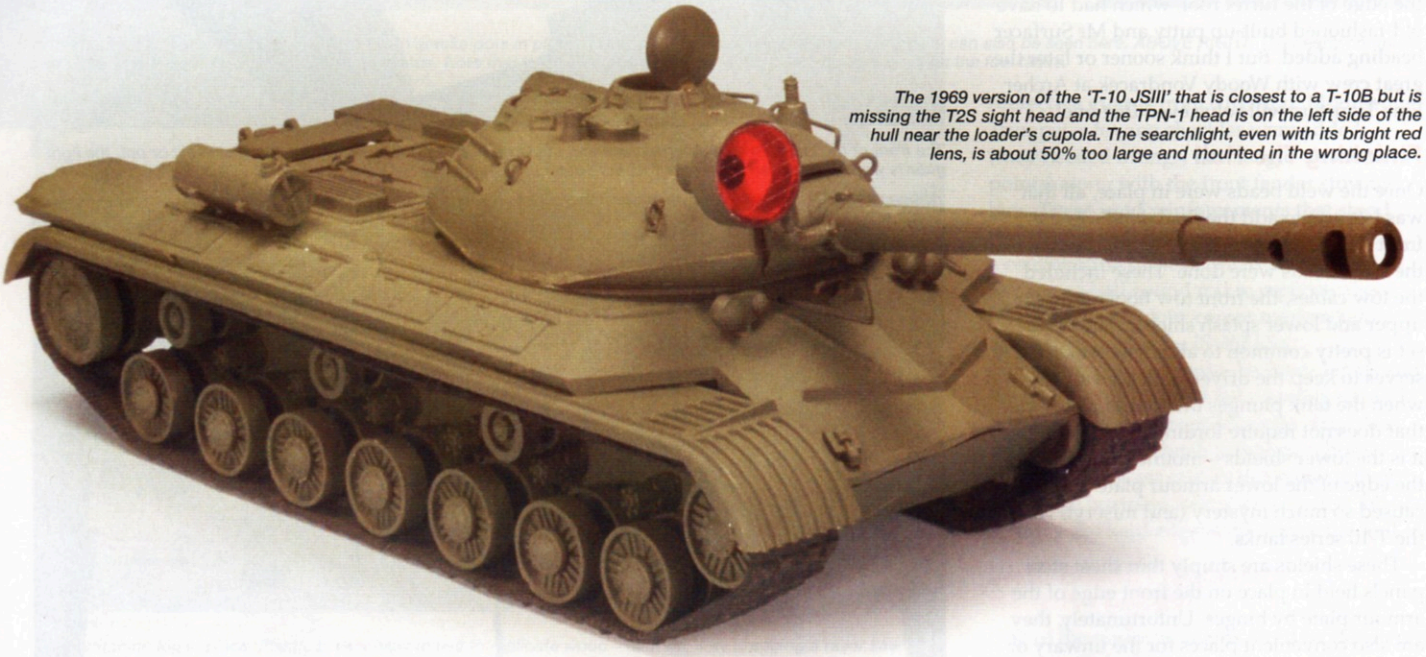
ABOVE: The front of the hull completed, with the front and rear splashguards in place along with the tow cables.

LEFT: The rear of the hull, showing the 'sophisticated' method used by a number of the T-10s to attach the cables (others had a turnbuckle like the IS-2 and IS-3) as well as the rear hull weld bead and breather tubes for the external fuel tanks.

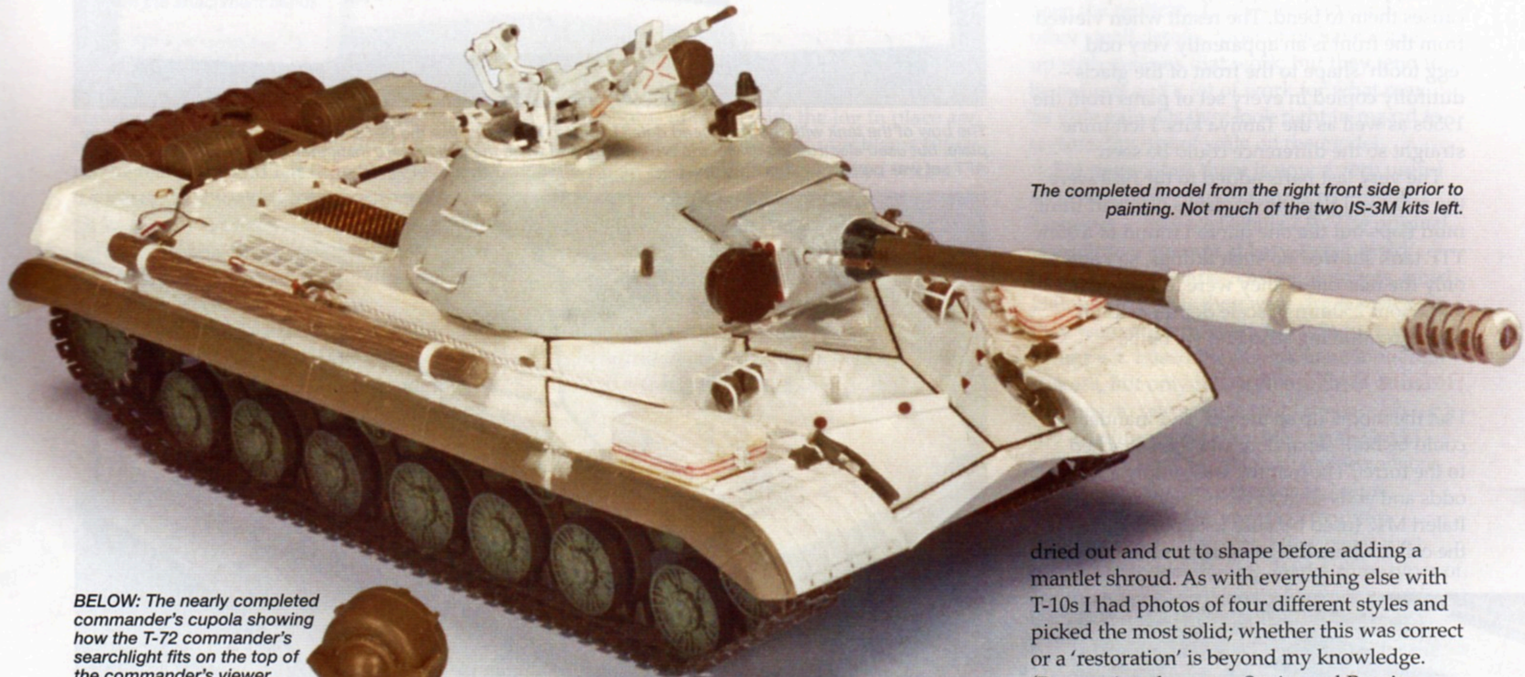
The prototype muzzle brake made from sections and filing using the jig. The system works!



RIGHT: The prototype muzzle brake and the jig with a section of the muzzle brake and its attached disk in the 'jaws' of the jig. The file went through the gated section and the segment was filed down until the file touched the transverse bars.



The 1969 version of the 'T-10 JSIII' that is closest to a T-10B but is missing the T2S sight head and the TPN-1 head is on the left side of the hull near the loader's cupola. The searchlight, even with its bright red lens, is about 50% too large and mounted in the wrong place.

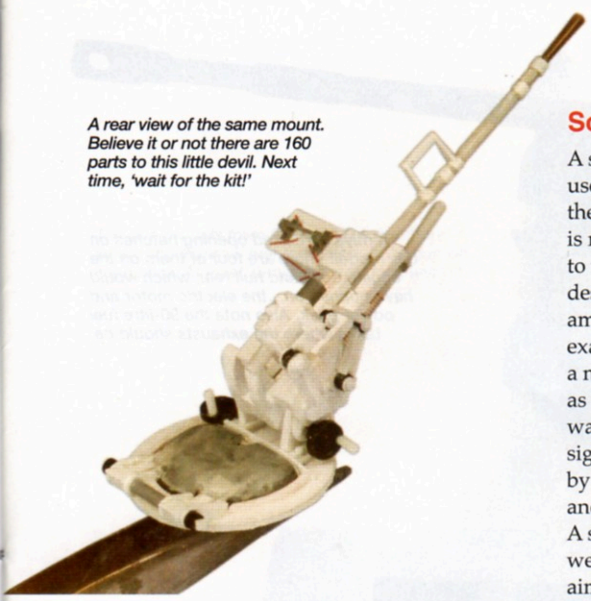


The completed model from the right front side prior to painting. Not much of the two IS-3M kits left.

BELOW: The nearly completed commander's cupola showing how the T-72 commander's searchlight fits on the top of the commander's viewer. The control rod is to the left of the searchlight.

mantlet of the T-10M) and solid shapes made from 0.040 sheet, with a section of 0.080 (2mm) Contrail tubing for the KPV machine gun port and 0.020 plates for mounting a searchlight. Once all shapes were pretty much correct, the mantlet base was cemented to the turret and the canvas mantlet cover added from three coats of Squadron White Putty, sanded when dried out and cut to shape before adding a mantlet shroud. As with everything else with T-10s I had photos of four different styles and picked the most solid; whether this was correct or a 'restoration' is beyond my knowledge. (Restorations by many Soviet and Russian shops literally used the "that's close" system of whatever parts and sheet metal were available and thus some rather bizarre results emerged.)

The searchlight was donated by a Tamiya T-62 and cut down to fit. I cut the first base plate too short, so went back later and cut it off, corrected the size, added bolts for detailing, and reattached it.



A rear view of the same mount. Believe it or not there are 160 parts to this little devil. Next time, 'wait for the kit!'

I next went to the sights. I had to add the main T2S gunsight head next to the mantlet which was easy to do – I drilled out a hole, used a 'mouse-tail' file to square it off, inserted a section of Evergreen square tubing the right size, and then added sheet to finish it off. There is a rain shield that projects over the front of most of these sights, so it was easy to finish off. The sight was then puttied into the shape of the turret (all you actually see is the armoured cover for the sight head and the ballistic window in the front, not the actual sight.)

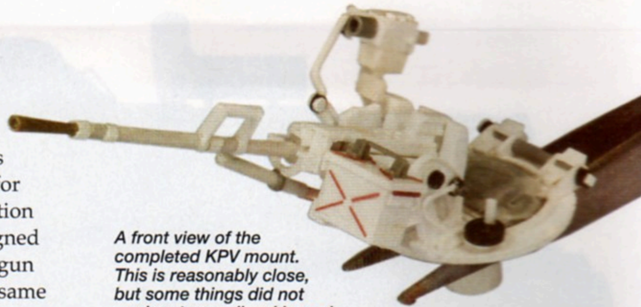
I then had to correct the night sight. When it was installed it seemed to be the same sight head cover used in the T-62 as it looked similar and both tanks used the identical TNP-1 night sight. Wrong! The head on the T-10M was shorter and used a drop-in armour plate with handle for protection when not in use as opposed to the bolt-on cover of the T-62. The sight head had to be cut off, lowered, have the new plate and side rails added along with the removal handle, and then reattached. I also added the bolts that held the sight in place at this time.

Soviet Gunsights.

A short diversion on sights; the Soviets used a rational system of designation for their gunsights, but a word of explanation is required. Soviet weapons were designed to use standard ballistic tables, so any gun designed to those tables could fire the same ammunition as others and with the same exact performance. Each set of ballistics had a nominal number, which was usually added as a suffix to the sight to indicate the gun it was matched to; this also meant the same sight could be used with different weapons by simply using a different aiming reticule and crosshair pattern inside the sight body. A second number indicated which secondary weapon (e.g. machine gun) could also be aimed by that sight.

The T-10, T-10A and T-10B used D-25 series guns, which used ballistics table 27 for that gun and ballistics table 11 for their coaxial 12.7mm DShK machine gun. So, the correct designation for the sight used by the T-10 would have been TSh-2-27-11 or 'Tank Hinged Sight Model 2, ballistics table 27, coaxial ballistics table 11'. The T-10B would have used T2S-27-11 and the one for the T-10M was TS2-29-14; here T2S means 'Tank sight stabilized in two axes' and the rest are ballistics table 29 for the M-62T2 gun and coaxial ballistics table 14 for the 14.5mm KPVT Vladimirov machine gun. The sight on the T-10A was a one-off with only a single axis (vertical) stabilized. (Here the TNP-1 should also have been identified in specific by the designator TNP-1-29-14, but the references don't indicate that.)

The gun from one of the IS-3M kits was used as the basis for the M-62T2. I cemented it together and cut it off where the bore evacuator was to go, added a length of 1/8in (3.175mm) diameter Evergreen tubing to provide a central core to the new barrel, and added the bore evacuator from nesting sections of Evergreen tubing and 0.010 styrene wrap to build up the flanges and rings used to fasten it to the barrel. A short section of 3/16in tubing was used for the barrel fore end.



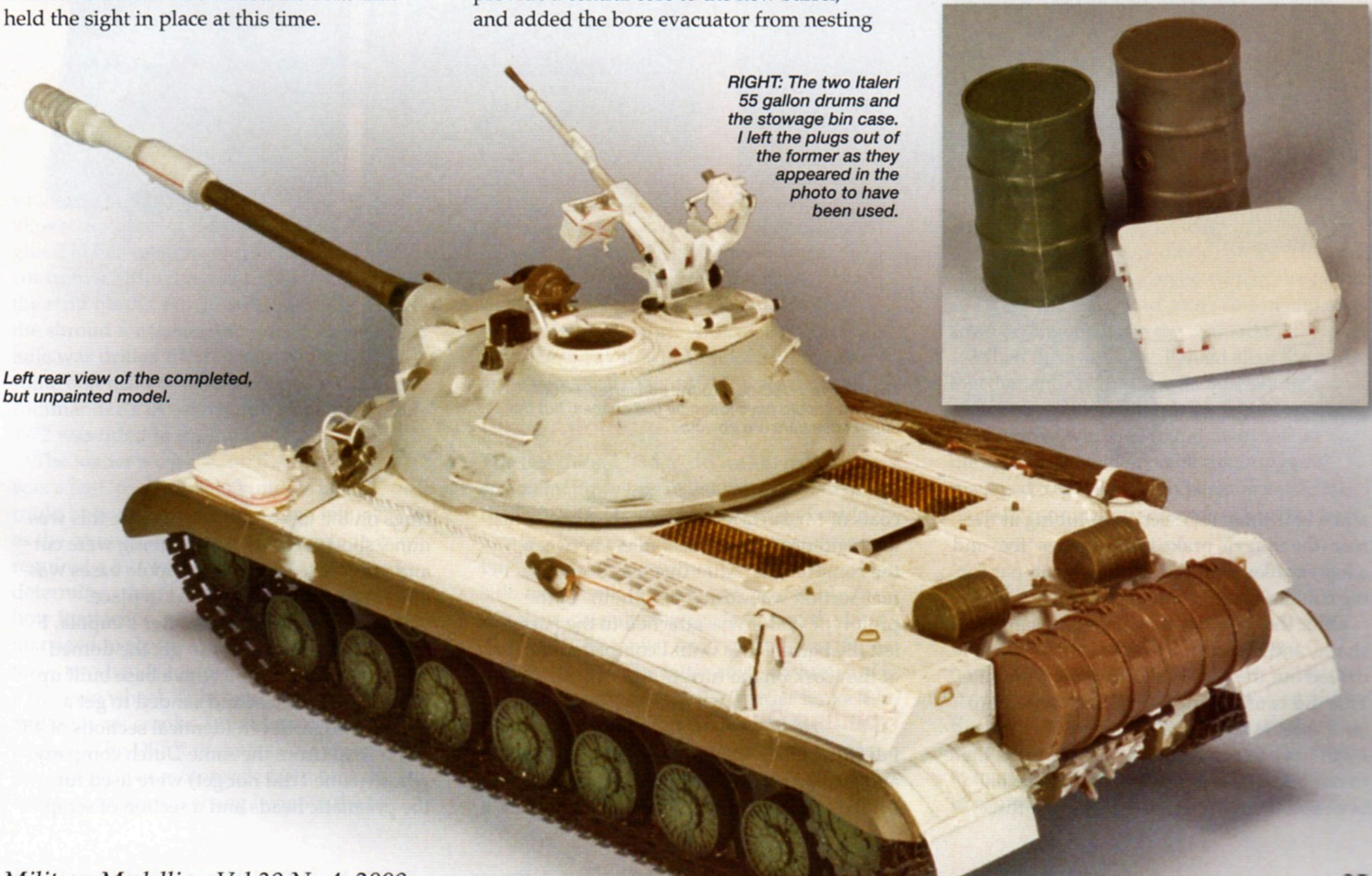
A front view of the completed KPV mount. This is reasonably close, but some things did not work out as well as I hoped. I used a micro-chisel to put the cooling vents in the gun barrel, but other than some white distress lines they do not show up well here.

Muzzle Brake

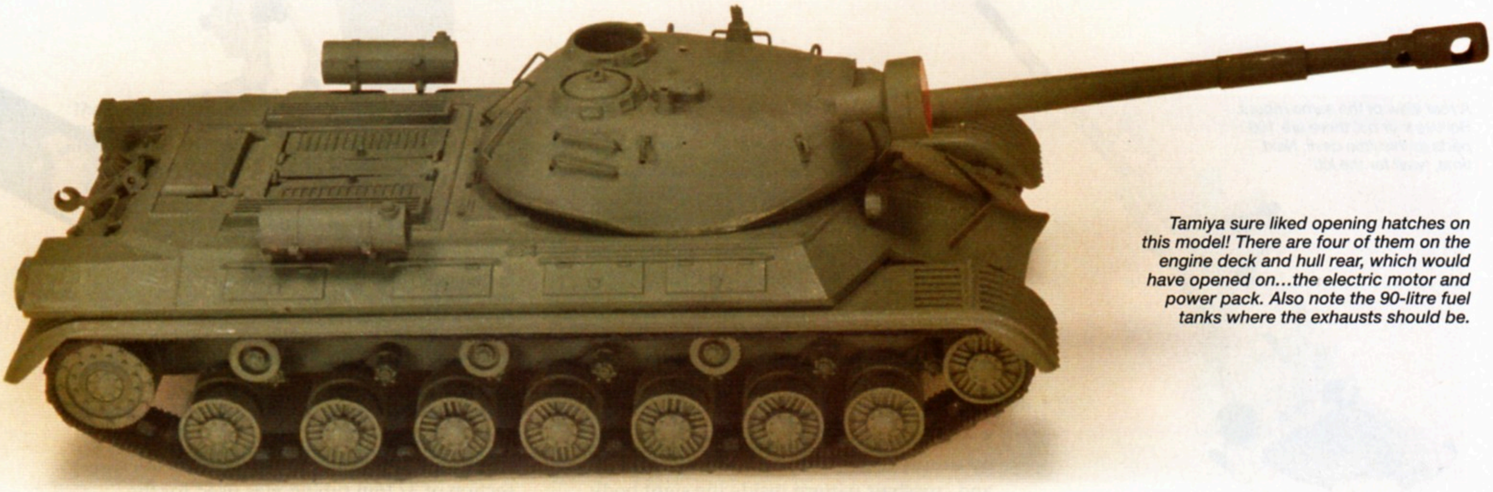
The muzzle brake on this tank is probably third in complexity to the PT-76A and the D-30 howitzer from the point of view of scratch building. After some consideration, I came up with a method to build it from component parts. I first made a test version to see if the concept would work.

Using scrap plastic, I made a jig to hold sections of ¼in (6.35mm) tubing with a drop-down in the centre and gates on either side. This was designed to provide a brace and gap for a 'mouse-tail' file to be used to cut the openings in the inner sections of the muzzle brake. I tried it out and after figuring out how to set a mitre box to get identical length tubing cuts with a C-clamp as a work fence, I trimmed them with the file and attached them to punched ¼in styrene disks. After checking to see that I could get them aligned and that the sizes were relatively even, I went back and made a copy for the model using slightly larger 8mm disks of 0.020' styrene, which were later sanded down to size. A cap of 0.040 styrene was used on the front end,

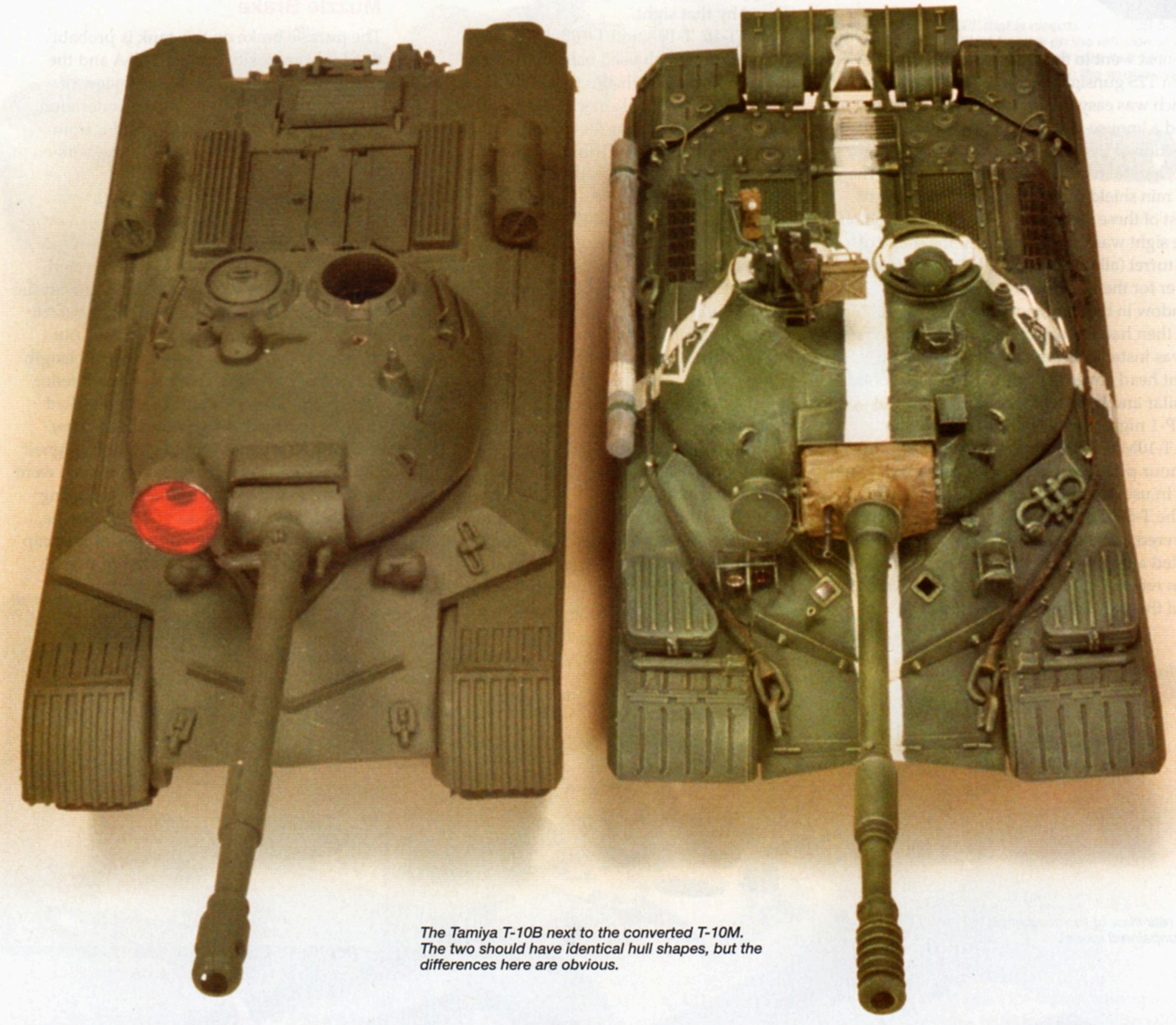
RIGHT: The two Italeri 55 gallon drums and the stowage bin case. I left the plugs out of the former as they appeared in the photo to have been used.



Left rear view of the completed, but unpainted model.



Tamiya sure liked opening hatches on this model! There are four of them on the engine deck and hull rear, which would have opened on…the electric motor and power pack. Also note the 90-litre fuel tanks where the exhausts should be.



The Tamiya T-10B next to the converted T-10M. The two should have identical hull shapes, but the differences here are obvious.

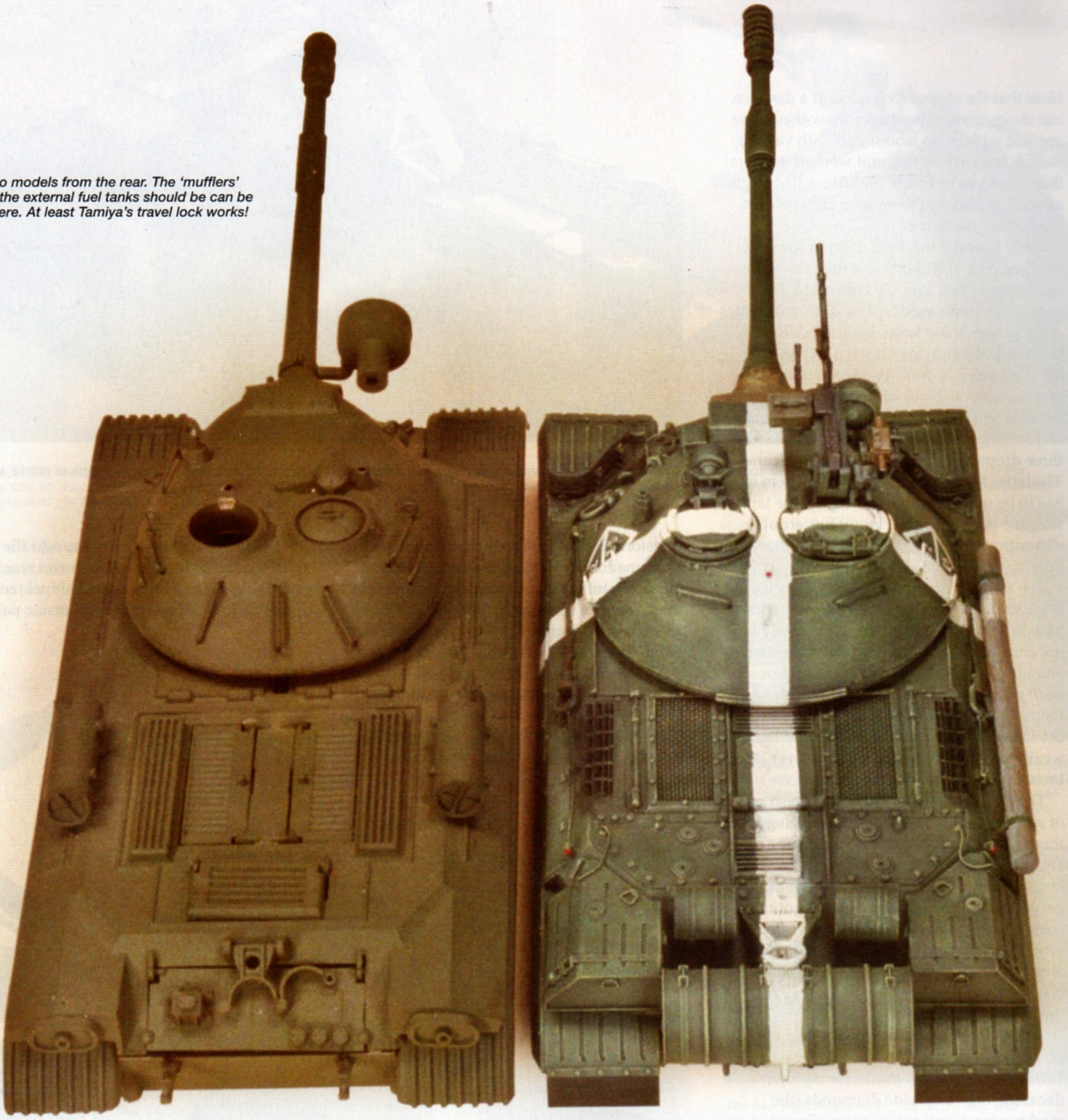
and a half-thickness section of tubing at the rear (the muzzle brake basically has 'five and a half' baffles with this arrangement, par for the course with this tank.)

Once the disks were aligned and sanded to shape, and the muzzle cap rounded down, I drilled out the bore with a Dremel Minimite. This did cause a bit of problems on cleanup (and there is still 'fuzz' in there which means I will have to run a pipe cleaner through there to remove it) but created a relatively axial bore and the right shape. I then used three coats of Mr Surfacer 500 to both give it a cast look and produce the cast fillets between the components. After this was done, the rear section was added per photos of the prototype and it was attached to the barrel. I left the barrel loose until I completed the rest of the work on the turret.

Rotating Cupolas

I decided that I wanted the cupolas to rotate and also be removable for finishing, so I drilled ¼in holes in the centre of the cupola rings on the top of the turret. Once this was done, short sections of ¼in tubing were cut and after the centre of the cupola bases was determined they were glued in place.

First up was the commander's cupola. I used an old hatch cover to get the domed cover of the prototype with a base built up from layers of sheet and sanded to get a bevelled edge. Seven identical sections of 45° angle strip (from the same Dutch company whose name I did not get) were used for the prismatic heads and a section of scrap



The two models from the rear. The 'mufflers' where the external fuel tanks should be can be seen here. At least Tamiya's travel lock works!

square strip for the commander's periscope viewer. Sections of rolled strip were then glued in between the periscopes and a ring cut from 0.010 styrene glued to the top of the strip blocks. Hinges were added, as was the shroud for the commander's viewer. A hole was drilled for a control rod and with some bolt head details in place the complete commander's IR searchlight from a Tamiya T-72 was fitted to the cupola.

The loader's cupola, on the other hand, was a real 'challenge' to build. While the base could be constructed in the same manner as the commander's, the KPV machine gun required a lot of extra research and effort to determine what it looked like in this mount, how it attached, and how it operated. I managed to figure most of that out, but as it takes two hands to operate (left hand turns a traverse wheel, right hand the elevation) and both are cranks, I could not locate the trigger! (The DShK mounts use a lever much like a bicycle or motorcycle front brake lever attached to the traversing lever on the left side of the gun mount.) Nearly every last bit of this assembly had to be done from scratch and even with some parts generalized or glossed over there are still over 160 parts in this beast. I had few clear photos and no references to work with, so I am the first one to say this is more of a reasonable approximation than a 100% scale replica!

Final Additions

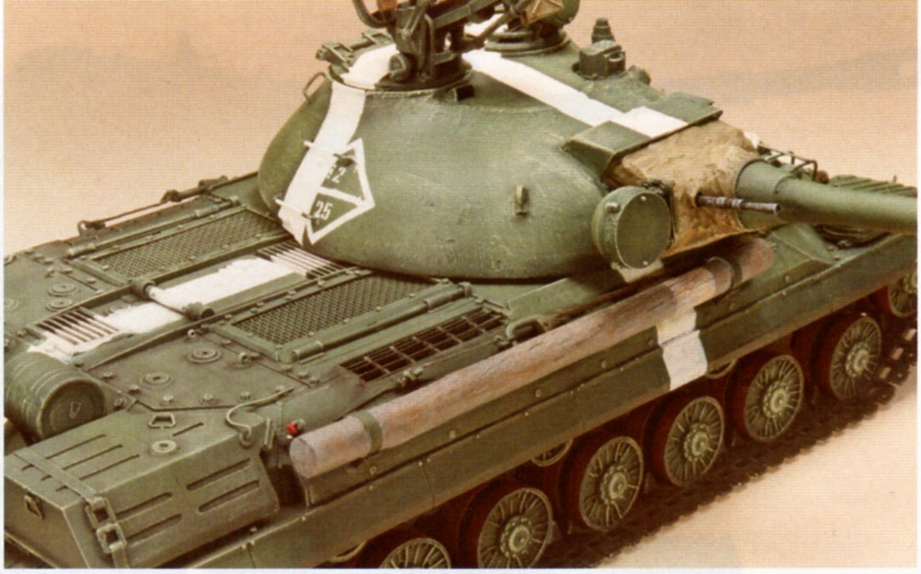
The last thing I had to do was to make the supplementary bits to get the model to match the 95th TTP tank in the one photo I could locate. This consisted of a unique stowage bin – like a large case, actually – on the left side of the tank (a precursor most likely to the chemical suit stowage boxes on the later T-64 and T-80 tanks) and two 200-litre (55 gallon) drums. The latter speak volumes of the poor mileage of the T-10 series tanks if in a relatively short road march distance – and allowing for some cross-country movement and combat – it takes 800 litres of extra fuel to get the tank to its destination!

The case had two sections of Evergreen H-beam profile stock cemented to its backside, which clipped onto the two left side handrails. No straps can be seen in the photo so I guessed that it had some sort of clip or strap arrangement on the rear side.

When this was done, I glued all of the parts together and checked for fit. Sure enough, somebody got left behind: the mud scrapers for the drive wheels. I found them still on the sprues and with a bit of 'mini-origami' managed to get them into position inside the finished running gear on each side of the tank.

Painting And Finishing

Since I wanted to do a specific Operation *Dunay* tank – within limits as the numbers could not be read on the one in Plzen – I had to first apply the white for the invasion stripes and then mask them off. I used Floquil Reefer White and then when dry used a combination of 3M Blue Tape and Silly Putty to mask them off, and also cut a template to protect the running gear from overspray.



The other side of the tank, showing the completed unditching log. It's not difficult to get a chunk of plastic like this to look like weathered wood!

Note that the stripes look good at a distance, but close-ups of other tanks show they were applied with troop labour and with varying skill. Some such as this unit were more literal than others as to where the stripes had to go as well, as they ran them over *everything* in the path of the stripe.

Once I got the masking down, I sprayed the base coat of RLM 73 and then the topcoat of Hunter Green over the entire tank. The canvas was replicated by five different shades of brownish-khaki from Floquil Rail Brown to Humbrol 8th Army Desert Sand and a bit of oil paint as well. The entire tank was given a wash of black oil paint thinned in mineral spirits, and then selective sections were also given a wash of India ink mixed as three drops in ½ ounce of isopropyl alcohol. The latter tends to tone down colours so it has to be used sparingly. Once dry, the tank was dry-brushed with Floquil Butternut (a discontinued colour, but Old Concrete in their railway selection is very close.)

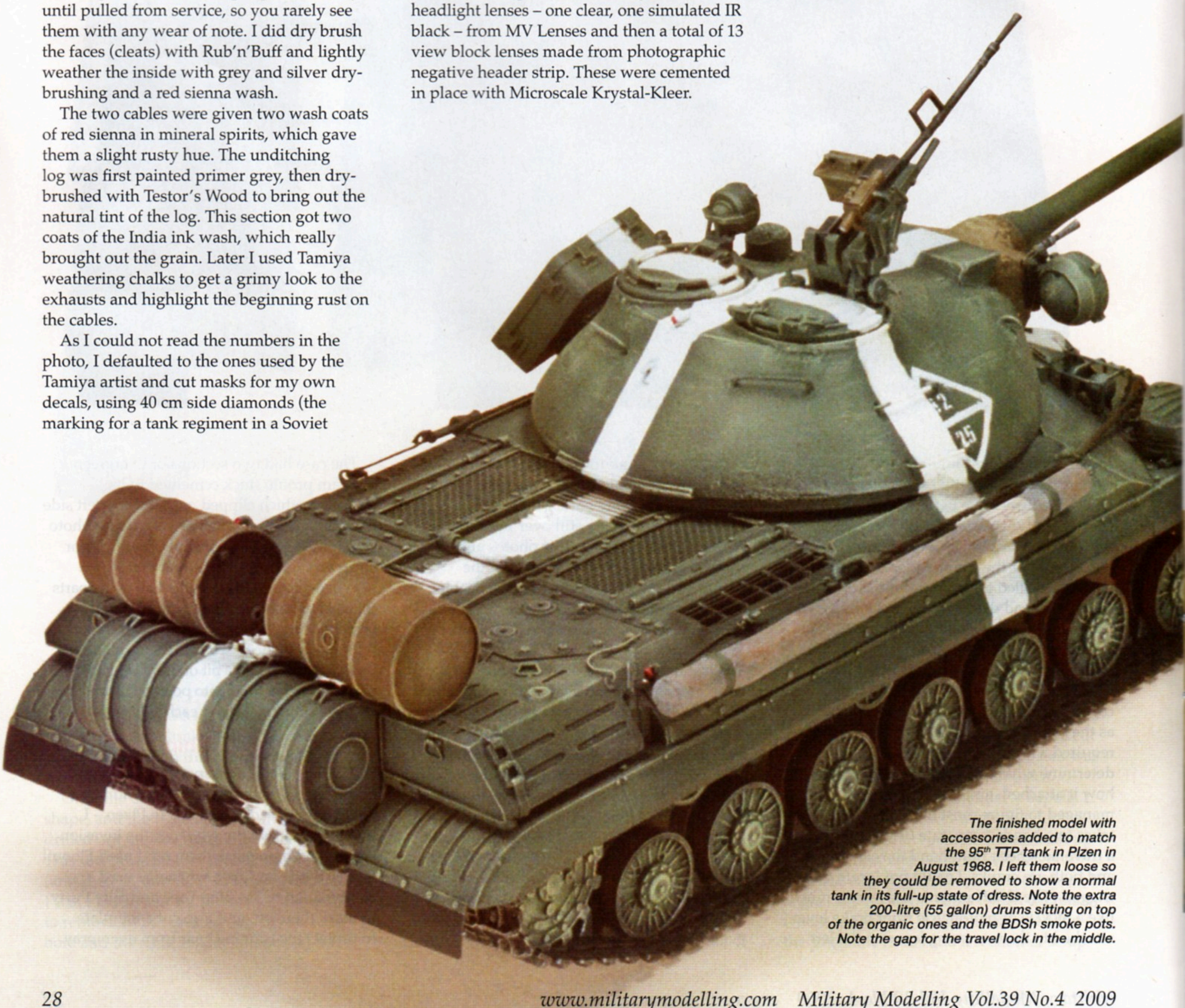
The tracks were painted Floquil Engine Black and, based on all of the information I had on T-10s, I left them black with only a minimal amount of weathering. These tanks were kept in sheds and kept up fastidiously until pulled from service, so you rarely see them with any wear of note. I did dry brush the faces (cleats) with Rub'n'Buff and lightly weather the inside with grey and silver dry-brushing and a red sienna wash.

The two cables were given two wash coats of red sienna in mineral spirits, which gave them a slight rusty hue. The unditching log was first painted primer grey, then dry-brushed with Testor's Wood to bring out the natural tint of the log. This section got two coats of the India ink wash, which really brought out the grain. Later I used Tamiya weathering chalks to get a grimy look to the exhausts and highlight the beginning rust on the cables.

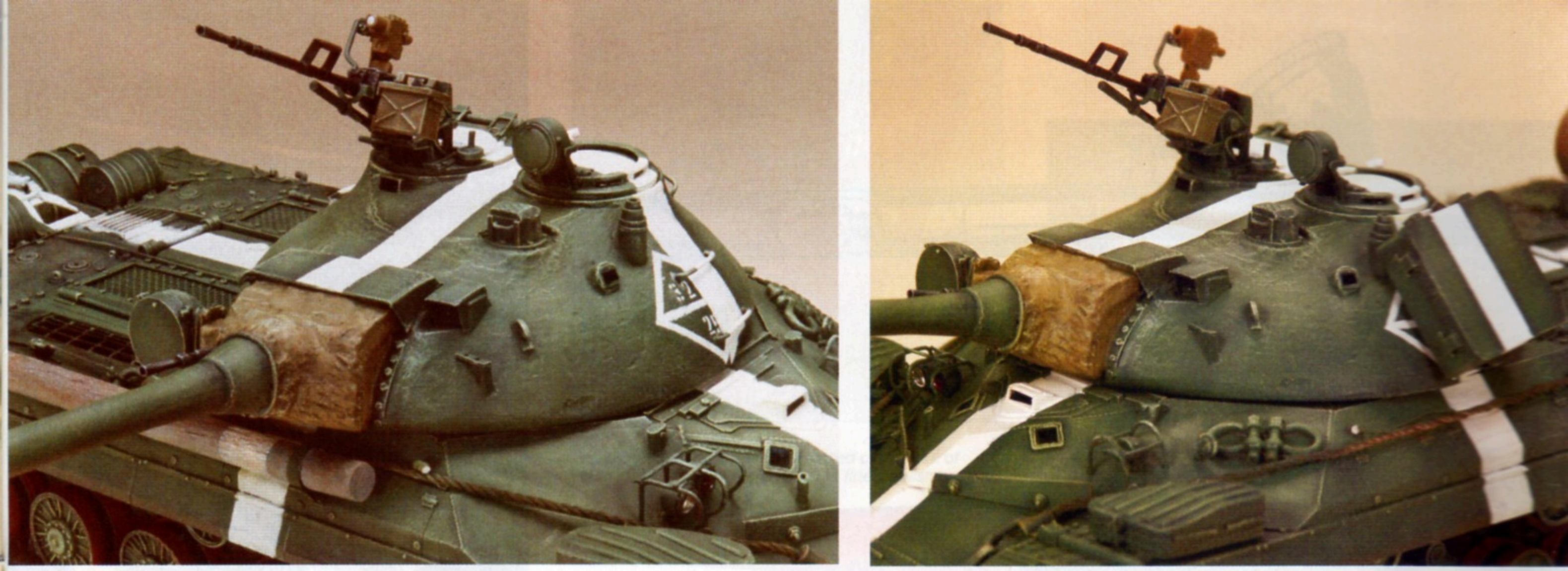
As I could not read the numbers in the photo, I defaulted to the ones used by the Tamiya artist and cut masks for my own decals, using 40 cm side diamonds (the marking for a tank regiment in a Soviet division). Since the stripes overlapped them, I trimmed them after I'd done them. Next I applied a full coat of Future, then the decals, then overshot it first with Testor's Dullcoat to level the finish and hide the decals and then Floquil Dust to kill the shine.

The final steps were installing the two headlight lenses – one clear, one simulated IR black – from MV Lenses and then a total of 13 view block lenses made from photographic negative header strip. These were cemented in place with Microscale Krystal-Kleer.

The very last touches were to add the three rear marker lights (top of the turret rear, one each side in front of the external fuel tanks) using Testor's Stoplight Red Metallic paint.



The finished model with accessories added to match the 95th TTP tank in Plzen in August 1968. I left them loose so they could be removed to show a normal tank in its full-up state of dress. Note the extra 200-litre (55 gallon) drums sitting on top of the organic ones and the BDSh smoke pots. Note the gap for the travel lock in the middle.

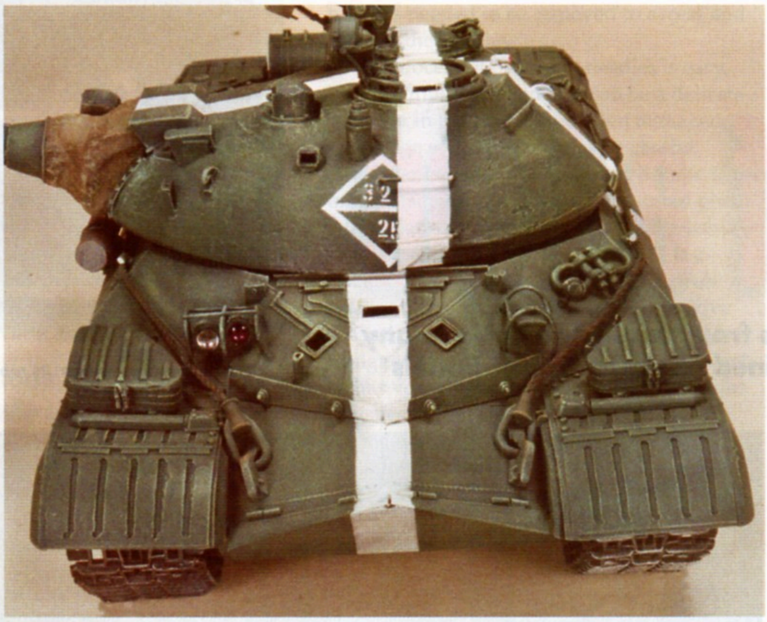


ABOVE LEFT: The 95th TTP used the diamond showing it was a tank regiment in a division and split in half, but as the markings cannot be read I used the ones from the Tamiya box art. Note that the stripes cover up about 40% of the markings on each side. ABOVE RIGHT: A close-up of the turret showing the fact that the stripe was painted over whatever got in its way. Some units even ran the stripes out on the barrel of the gun!

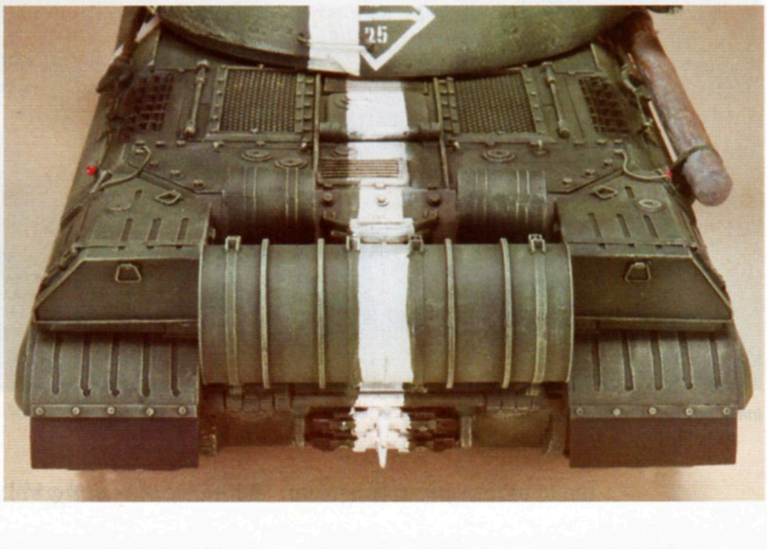
Once dry, the case was clipped onto the left side handrails and the two 55 gallon drums simply propped between the attached 200-litre drums and the BDSh smoke pots.

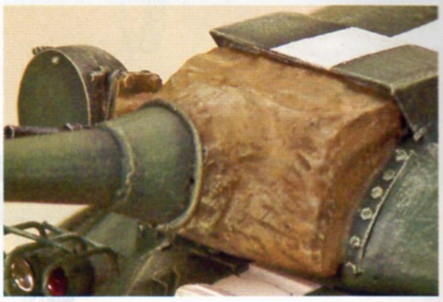
Conclusion

This project took about 200 hours of work and at least the same amount of time in research, as it is such a poorly presented vehicle in historical works or even simple handbooks. It was nice to find a shot of an actual tank in its one moment of 'glory.' But now, I am really starting to despise the Kotin bureau!

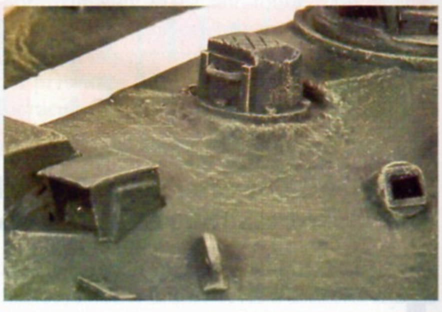


ABOVE: The driver had a big central viewer, which could be replaced by a night (IR) viewer, as well as two flank ones for extra vision when buttoned up. The one on the side of the turret is a bit odd, but may give the gunner some extra light at his station. BELOW: The stripes at the rear of the tank. Close-ups of other tanks in Czechoslovakia show that the Soviet tankers tried to be neat, but they also had to get the stripes to fit on the vehicles so some sloppy results were achieved.





A close-up of the finished mantlet and mantlet shroud. This is nothing more than putty laid over an Italeri M47 breech and filed and ground to shape with a Dremel Minimite. The searchlight with corrected base plate and bolts can be seen on the left.



The two sight heads – the T2S on the left, and the TPN-1 on the right. Ah, the joys of macro photography, showing where the glue did not quite grab the entire part!

Credits

Many thanks to Steve Zaloga for his assistance on the background and research into the tank and the reference photos, and to Woody Vondracek for the Surface Details which so ably solved my weld bead problem! Also a tip of the hat to Neil Stokes who informed me about the existence of the Navigator kits.

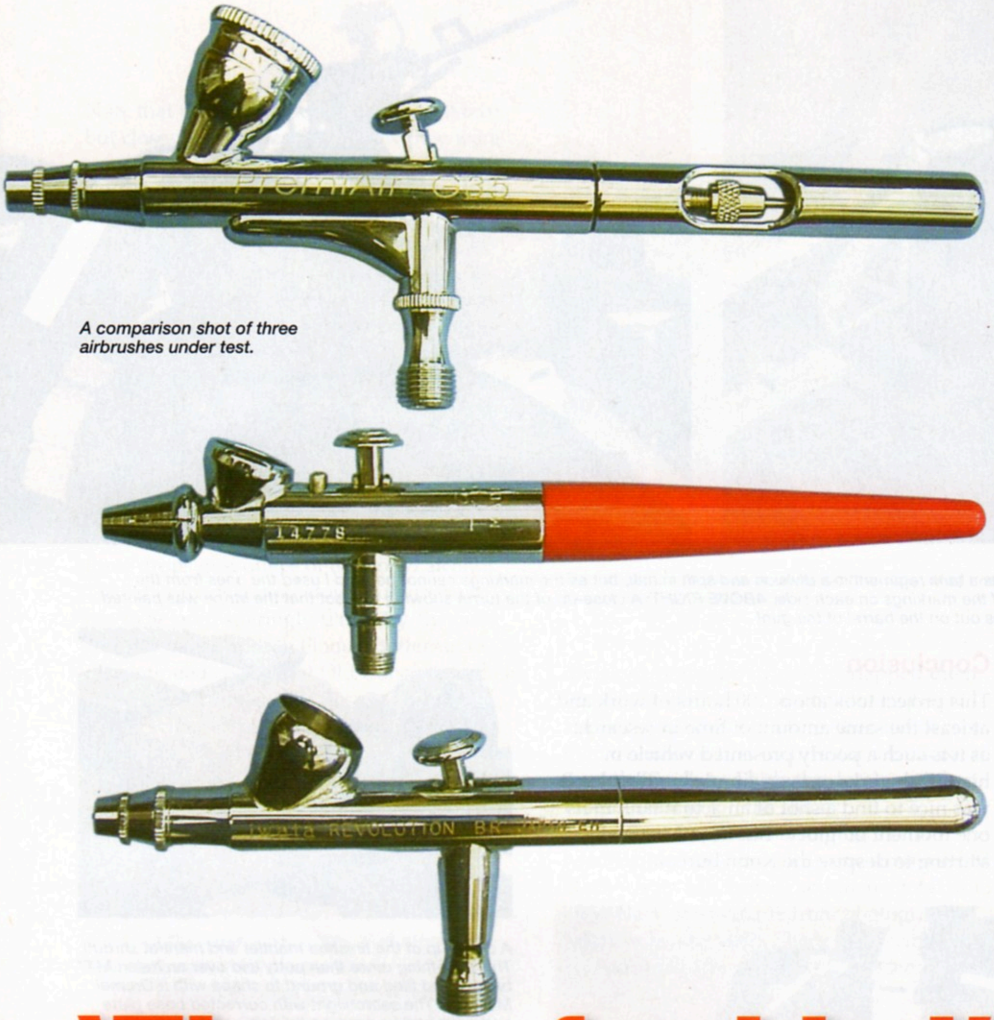
Availability

Tamiya kits are imported into the UK by The Hobby Company Ltd., Garforth Place, Knoll Hill, Milton Keynes MK5 8PH. Tel: 01908 605686. Fax: 01908 605666. sales@hobbyco.net enquiries@hobbyco.net

Archer Fine Transfers (for weld beads) PO Box 1277, Youngsville, NC 27596-1277 USA.

Bibliography

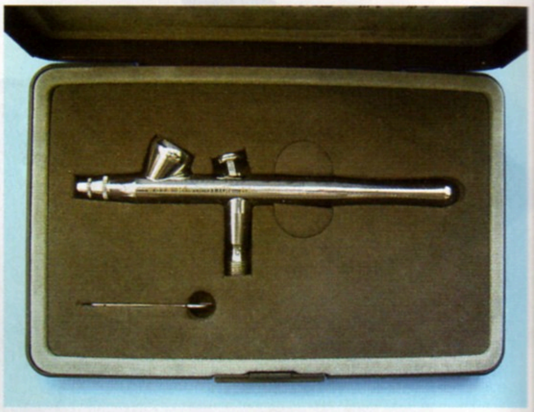
For the Bibliography see the first part of this article in *Military Modelling* Vol.39 No.2. ☆



A comparison shot of three airbrushes under test.

The Premi-Air G35 in its strong and unusually designed case.

The Paasche VJR in its case.



The Revolution from Iwata in its robust case.

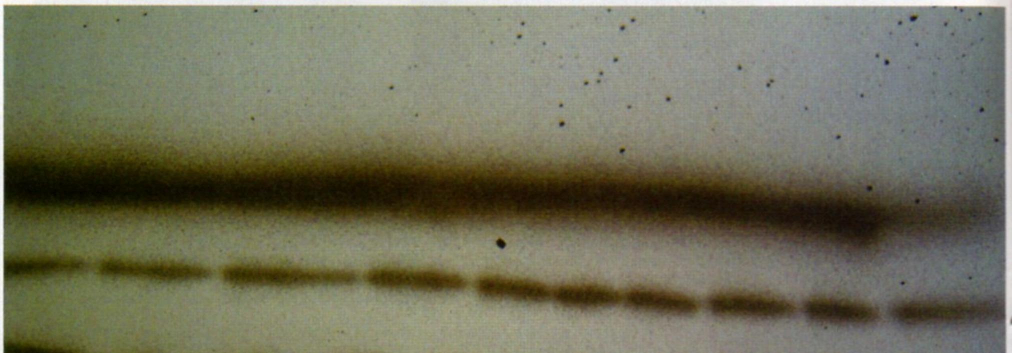
'Three of a kind'

Rob Henden tests three airbrushes from the Airbrush Company and illustrates the results he obtained on some of his models

The airbrush offers a useful alternative to brush painting models, and if used well can duplicate the finish of an original item, add to this it's ability to cover large areas using relatively little paint, and one can save a fortune in aerosols, making it an indispensable tool.

To anyone unfamiliar with the airbrush, this pen-like instrument uses two resources, firstly a supply of suitably thinned paint, and secondly a regulated air supply to spray the paint from the end of a needle. This sounds fairly simple, but there a many factors that can cause problems – the air pressure too high or too low, paint too thick, or thin, unwanted moisture in the air supply, small particles in the paint which can create blockages, a bent needle, a damaged gasket or 'O' ring, thinning paint with the incorrect thinners, the list is endless! But with all of this to consider where should the novice air brusher start?

Hopefully by testing three reasonably priced airbrushes from three manufacturers, I can help cut through some of the confusion. The initial cost of buying a first airbrush and a compressor would seem expensive, but a well-chosen combination should last for many years if well maintained.



Initial problems resulted in 'dotted lines'.

The three airbrushes I have been supplied by The Airbrush Company to test are from Paasche, Iwata, and Premi-air and all offer excellent value for money. *Would readers please note that the retail prices of the three airbrushes were increased with effect from 5th January 2009 because of the fall of the £GBP against the $USD and other currencies.*

At £86.99 The Paasche VJR is one of many models offered from a company that has 104 years of experience of producing airbrushes for a large range of applications.

The Iwata Revolution is an entry model from a range of superbly engineered airbrushes with all the finesse of the rest of the range, at £79.99. Finally, and a new name to me, is the Premi-air G35 which is The Airbrush Company's own supplied brand, and this fine looking airbrush is priced at an amazing £34.49.

Initial Impressions

It is easy to fall into the trap of being drawn to a product by it's packaging, but remember this is not really important to it's function, despite this it is good to be able to protect a fairly vulnerable instrument when not in use. All three airbrushes come in adequate boxes, the Iwata in a black rubberized effect box, the Premi-Air is nicely presented in a clear/glittery plastic case, and finally the Paasche is contained in a plastic case which is similar to the type of case that school compass sets are sold in. The only potential problem that could occur when using a plastic case of this type, is that if a stray drop of cellulose thinners or similar were spilt on it, the plastic could be damaged.

I examined each of the airbrushes in turn to get the basic 'feel' of them, and to assess the quality of their components based on my previous working knowledge of the airbrushes I have owned, which include a variety of models from DeVilbis, Badger, and Iwata.

Basic Functions Explained

All three are gravity fed, internal mix, double-action airbrushes, which in layman's terms means that each has its paint cup/reservoir on the top of its body, and relies on gravity to feed the nozzle with paint. A double action airbrush means that the operating lever/trigger is firstly depressed with the finger to control the flow of air, and secondly drawn backwards to start and to increase the flow of the paint sprayed from the tip of the needle. This type offers much better control than more simple models that have both functions operated by one movement (single action) i.e. paint and air at once.

To see how each airbrush performed 'straight out of the box', I connected each one to my trusty Iwata Smart Jet compressor, and loaded one after the other with thinned acrylic black paint and sprayed some random lines onto a piece of paper. All three sprayed adequately, but I decided to do a little fine tuning to get optimum results, the initial problem was getting consistently even lines, and smooth operation of the trigger/operating levers. In order to have the best control of paint flow when it is required, each of the needles were removed and examined, this was to both polish and lubricate them.

T-CUT
The ORIGINAL COLOUR RESTORER
500 ml

'T'Cut auto cutting polish was placed on a piece of clean white paper in preparation to finely polish needles.

Needle Care

Despite being well-machined, some needles can have a fairly matt/unpolished finish which can potentially cause paint to drag across their surface and, in the worst cases, cause the paint to build up on the tip of the needle, thus leading to erratic spray patterns and spatters.

In order to remove the needle each of the airbrushes has a removable handle which in the case of the Paasche is totally enclosed, as is that of the Iwata Revolution, but the Premi-Air has an exposed section which is designed to aid cleaning by pulling back the needle by it's adjustment screw; although this is an advantage and a very useful feature all three handles needed to be removed to access and remove the needles.

The process of polishing needles is easy, but care must be taken as it can be a delicate task, but in the past I have often managed to salvage even bent needles by careful straightening and polishing and despite them being easily bent, most can be restored given a little patience. For the purpose of polishing I have found that all that is required is a flat surface, such as glass, a piece of clean white writing paper, and some automotive 'T Cut' cutting polish. The cutting polish is designed to restore a shine to dull paint, and so has very fine abrasive properties, but also polishes the surface too. I have used 'T Cut' for many years for removing both glue marks and other blemishes from transparent kit parts such as aircraft canopies, but it also is a great alterative metal polish.

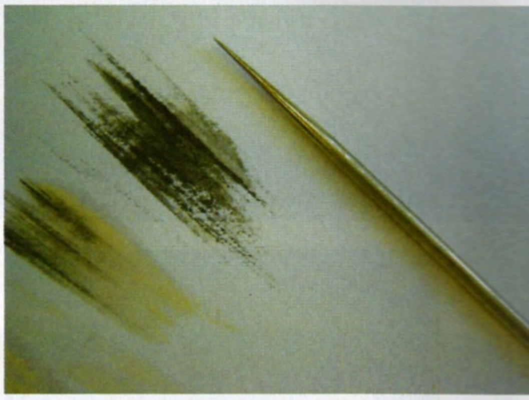
To improve a needle place a piece of clean paper on a very flat surface such as a piece of glass, then add a tiny drop of 'T Cut' (cutting polish) to the paper. Next hold the needle between the thumb and forefinger, and place it into the cutting polish, now lay the flat tapered side of the tip flat against the paper. The tip can now be gently pushed backwards and forwards, whilst twisting the needle at the same time, there will then be a dirty black residue, which is removed by repeating the process on a clean area of the paper, a shine will then result and the needle can then be refitted with a little Superlube added to aid smooth movement of the needles.

This process although not strictly essential, really improves the quality of the paint flow and reduces build up on the tip of the needle.

Paasche

The first airbrush that I tried was the Paasche; this seemed to have a delicate, light feel to its control lever/Trigger, which demanded very precise control with the finger.

Use the cutting polish very sparingly as shown here.

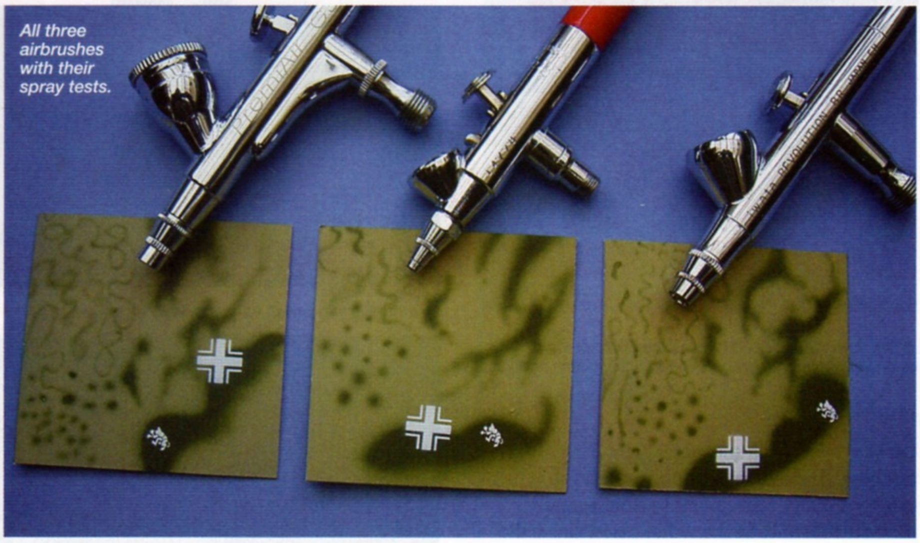


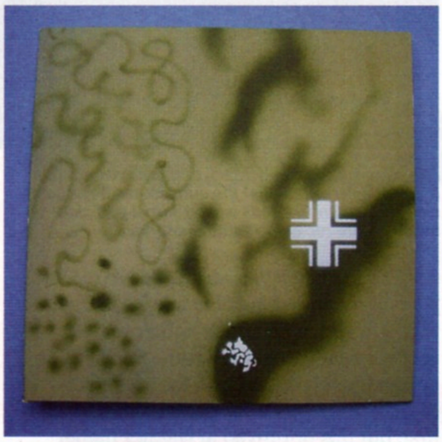
After moving the needle back and forth it is evident by the black residue that the surface has been gently cleansed and only needs wiping with a soft cloth or tissue before replacing into the airbrush.

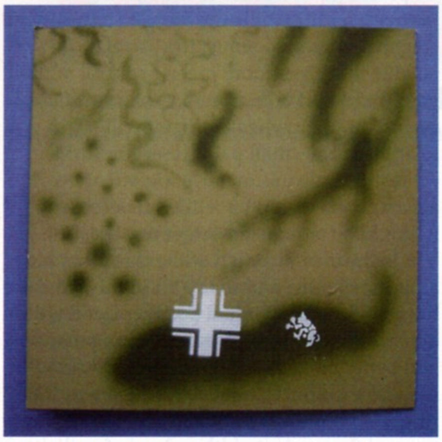
After using heavier airbrushes in recent years it reminded me of using the Badger 150, etc., which are much lighter to hold and operate. I attempted some fine lines at approximately 25 psi, and found it fairly difficult to get consistently fine lines at first, but this improved at slightly higher air pressures. A feature of the VJR that I particularly liked was the knurled adjustment ring that is used to adjust the travel of the needle; this gives more precise control of the paint flow, and takes some of the uncertainty out of knowing when the paint will begin to appear. The small paint reservoir (0.5 cc) restricts the use to fairly limited areas, although this could be refilled if necessary, it would be tedious for larger models. The VJR is the only airbrush of the three that has a plastic handle, and to my mind this would have been better if it had been replaced with a metal handle for both ease of maintenance, and better balance. The part that interested me was the nozzle assembly, which was 'O' ring free, and has a self-centring/sealing tapered fit nozzle as with my now familiar Iwata Eclipse. This feature saves the need to worry about rubber 'O' ring seals and their condition, which from past experience can be quite frustrating, this feature also makes removal of the nozzle for cleaning far easier. The VJR comes with a 'bench hanger', a spanner, and a protective metal cap for the nozzle assembly.

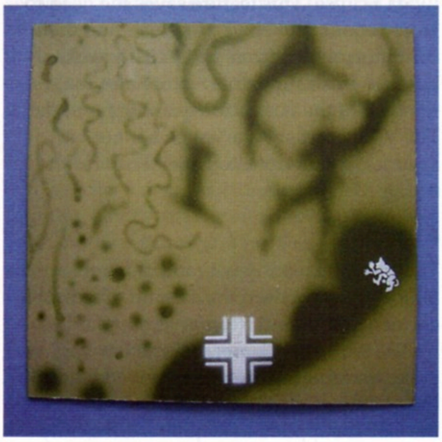
Premi-Air

The Premi-Air is a new brand name to me, although I have used their brand of airbrush cleaner, and Liquid Reamer as supplied by The Airbrush Company, which is very good, and so I had no preconceived ideas of the quality of the airbrush. The plastic case the G35 is supplied in is quite a differently designed to those of the others tested and this


All three airbrushes with their spray tests.


The Premi-Air G35 test card.


The Paasche VJR test card.


The Iwata Revolution BR test card.

helped to give a good initial impression, as well as being a strong and practical way to store the airbrush safely.

On opening the case the G35 appeared to all intents and purposes a top of the range quality airbrush, and nothing pointed to the fact that this was in fact the cheapest of the trio that was supplied to me to test.

The chrome finish is absolutely perfect and when held for the first time appeared quite weighty, and well balanced and felt very similar to some of the Iwata range. The handle has a convenient cut-out for easier cleaning between colour changes, the needle adjustment screw can be pulled back and forth whilst spraying thinners, etc. through the tip, thus cleaning up without removing the handle assembly. The Premi-Air is the only one of the three airbrushes that has a lid for its nicely-sized (0.3 cc) paint cup; this is a sensible feature for preventing paint spills, which can so easily happen when you least expect it. The nozzle assembly is fairly simple with only the nozzle cap being removable without tools, the actual tip is a steel based one which can be removed using a small spanner supplied, again there are no seals to perish or deteriorate. The operating lever (trigger) seemed to be a little vague in its use, although this could be improved with adjustment of the needle and simply getting accustomed to it's 'feel' after continued practise.

When used for the first time, I was surprised just how fine a line could be achieved, and at the other end of the scale how wide a spray pattern could be achieved for greater coverage. The only difficulty I had was that the trigger seemed a little tall, and had some unwanted play when used, but this could be just initial impressions and could be 'got used to' with experience. Despite being the least expensive of the three tested,

I was surprised that the G35 is supplied with a hose adapter, a nozzle spanner, and most surprising inclusion a 'crown' type nozzle cap, which is most often an optional accessory with much more expensive airbrushes.

Iwata Revolution

The Iwata Revolution BR is one of the entry models in their range, but don't be fooled by this, as it is finished to the same high quality, and to the uninitiated could easily pass as a much more expensive 'top of the range' model. It has the weighty, well-balanced feel of the rest of the Iwata range, as well as a superb chromed finished body which includes the handle, the use of shiny chrome plating may sound as though I may believe the more 'bling' the better, but this plating offers a very tough and resilient finish which can be cleaned very easily with quite aggressive thinners such as Premi-Air Liquid Reamer without fear of damage to any part of the brush.

The 0.50mm nozzle is made from a steel alloy, which I have found to be excellent, and very reliable as fitted to the Revolution's big brother the Eclipse. When using previous brands of airbrushes in the past, it was not uncommon for me to have to replace brass tips twice a year due to wear, but since using the Eclipse I have only replaced one, which was due to an accident involving a 'ham fisted' me and a hard laminate floor!

Having tested the Revolution in a previous ***Military Modelling*** feature, I was fairly prepared for the result of a 'field test', but what did surprise me was just how fine a line could be achieved. With the nozzle cap removed the Revolution was able to produce fine lines with consistency, just as well (dare I say it?) as its big brother the Eclipse. The Revolution is slightly smaller than the Eclipse, and marginally lighter, and I found it very comfortable to use compared to the others, and would feel happy to use it over long periods. The Revolution comes with a spanner for removal of the nozzle tip.

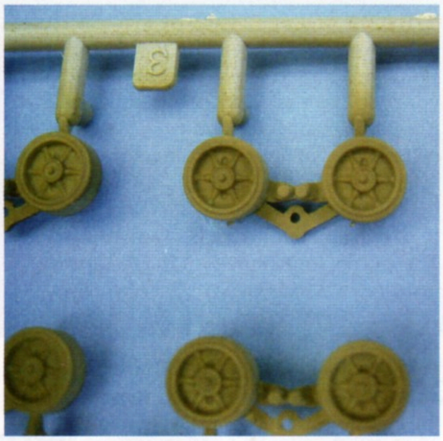
Test Cards

My intention was to give the three airbrushes a level playing field when it came to testing, and so after the 'initial' trial which was literally an out of the box test, I decided to create a test which firstly showed the covering ability, and then lines, spots, and solid shapes, and generally the types of use that would be required to paint most models of vehicles and aircraft, etc. By doing near identical 'swatches' the only limiting factor was the human one, but I did my very best to give all three a fair trial, without prejudice. Dark Yellow and then a Dark Green were chosen for colours that are typical of the shades and tones that we all are likely to use, a photo-etched mask of a German divisional sign from a Fine Moulds set was also used in the comparison test.

The Model Test

I was keen to see how all three airbrushes would perform whilst being used to paint a fairly simple model, and so I chose Dragon Model's D-Day Sherman M4 75mm with deep wading equipment. I started by spraying the wheels and bogies on the sprues using the Paasche VJR with unthinned Lifecolor Olive Drab from their OD set of paints.

The paint was a little thick, but the VJR sprayed without fuss, and I was able to target just the wheels and bogies without over spraying the surrounding area. Once dried I sprayed the road wheels using Lifecolor matt black with a little White added via the Premi-Air G35. Once dried, the wheel centres were repainted in Olive Drab using Royal Models' stainless steel etched wheel masks, they looked



A close up showing light coverage of VJR without filling in details.

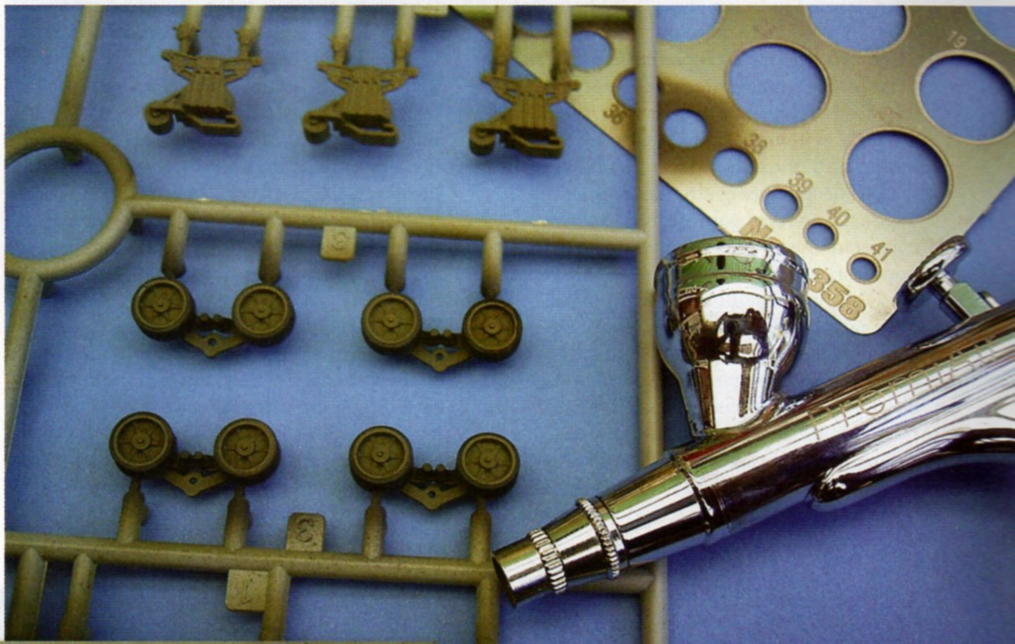
fine, but the bogies had to be repainted in Olive Drab, using the G35 without masking. This highlighted one of the Premi -Air's strengths at this stage as very small areas could be targeted without over spraying.

Despite still being impressed with the Paasche VJR at this stage, I added some black to the Olive Drab to shade some of the details of the lower hull, and found it to be troublesome, and decided to change to another of the brushes. I found that the VJR at its best was impressive when used with well-thinned paint, but it became inconsistent whilst using paints with fairly course pigments.

The failed attempt to shade around certain details of the hull of the LCM meant that these areas needed to be redone using either the G35 or the Revolution, and both were pressed into service with fairly equal results. The Premi-Air gave both consistently good coverage and was capable of pinpoint accuracy; only it's slightly tall operating lever (trigger) caused me slight difficulty compared to the other two.

The Revolution was also used to great effect, again giving good coverage, and fine accuracy when used to shade small areas on both the Sherman, and the LCM.

ABOVE: The VJR was easily used to target just the wheels and bogies of the Sherman without over-spraying the adjacent sprue, etc. BELOW: After realising my mistake in spraying the wheels as well as the bogies Olive Drab, they were then resprayed using a dark grey mixture before using masks to repaint the wheel hubs with Olive Drab, the Premi-Air was tried out at this stage with good results.



The vacuum formed diorama base was sprayed using the Premi-Air G35 with the nozzle tip removed to obtain a 'splatter' effect, which was done in a dark brown over the Lifecolor Dark Yellow (Dunkelgelb).

The Revolution was mainly used for the vac-formed diorama base for the seascape. I attempted to use translucent Tamiya colours on this applied from the reverse side of the clear plastic at first, but found this to be very difficult to build up depth of colour in multiple layers, as well as adding the white foam, and 'white horses' on the crests of the waves, and so the top side was sprayed using a varied concoction of blue, and green mixes, topped off with many coats of clear acrylic automotive lacquer. The variety of water based colours, followed by the spirit based clear lacquer caused no problems for the Revolution, as it was easily cleaned between colour/medium changes by spraying through using appropriate thinners/cleaners.

The Premi-Air was used to spray the beach portion of the base using Lifecolor *Dunkelgelb*, as the main colour, this covered well, but lacked texture.

Areas of wear were brush painted in Lifecolor's darkest rust colour from their 'Rust and Dust' set, then airbrushed using the various airbrushes to add lighter shades, the Revolution was the best for this purpose.

To add a little contrast and improve the sand, I opted to try an effect that I have not often tried, namely removing the nozzle assembly to achieve a 'splatter' effect. I added a darker brown mixture for this purpose, and practised on a piece of paper first.

I must say that I was very impressed indeed with the effect of using the G35 in this way, as despite being a random speckling finish, the spots of paint seemed to be very consistent in size and in no way messy in appearance. This technique alone will make the G35 a very useful tool for future use.

Initially I built Dragon's M4 75mm Deep wading Sherman, and used it with the LCM diorama, but later opted to build the M4A1 Sherman supplied with the LCM. The reason I didn't build this before was mainly due to Dragon's exclusion of any decals for the Sherman meant that I had no reference to complete it and so I just guessed at a scheme based on the first Sherman kit.

The Verdict

It is quite difficult for me to compare airbrushes from different manufactures, as I could base my findings according to my own personal preferences regarding my own favourite brand of airbrushes, but despite this I hope my trials have been helpful in highlighting some of the observed differences.

All three airbrushes tested are worth their prices, and all offer good value for money, having established this, I can't ignore the amazing quality of the Premi-Air G35, as it is so well engineered, and operates so well. Faced with so many cheap airbrushes on the market from the Internet, etc., which are often inferior copies of brands such as Iwata, it makes good sense for anyone on a limited budget to opt for the G35, as it has full technical and spares backup from The Airbrush Company, unlike other airbrushes in this price band!

The Paasche was a surprise to me as I have been aware of this brand for many years, and yet have not used one of their airbrushes until now. My impression of the VJR model is that it is a well engineered and would probably be better suited to finer mediums, such as water-thinned gouache, as used in artwork, etc., and that coarse spirit based model paints need to be suitably thinned to get the best from it. There is no doubt that the VJR is a capable instrument which given time I could master and use to great effect, but was not quite as consistent as the other two.

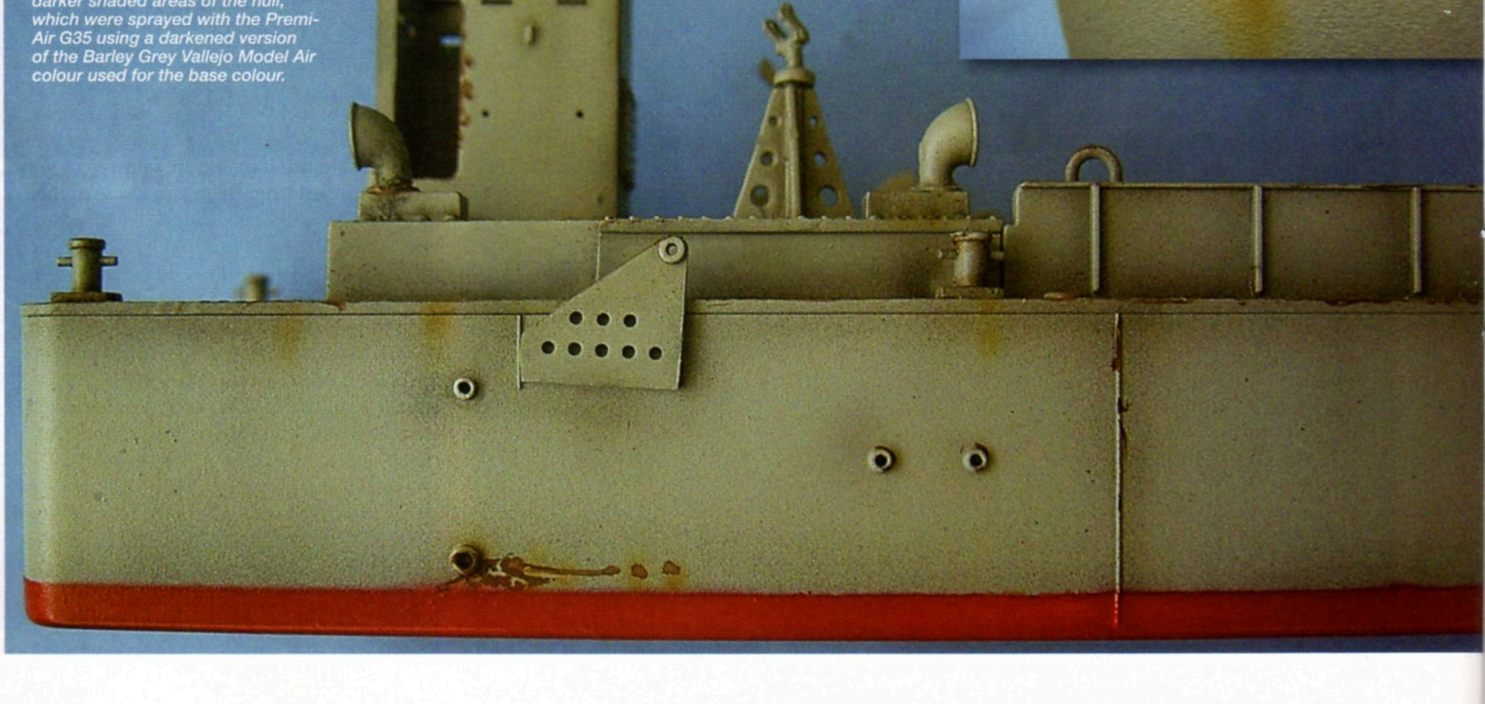
The Iwata Revolution is the most expensive airbrush of those tested, but is most certainly the best investment for insuring many hours of trouble free airbrushing. Having used its more expensive big brother the Eclipse for quite a few years now, I found the Revolution to be very close on its heels in terms of capabilities in use.

The Quality of engineering offered by the Revolution is excellent especially the nozzle tip as it has the durability required to cope with courser mediums such as cellulose, and spirit based acrylics.

When the test cards were sprayed, there was no doubt that all three airbrushes were capable of producing pleasing results, but which would I recommend for a novice? This is a difficult choice as it would be between the most expensive, and the least expensive of the three. There is little to separate the Premi-Air, and the Iwata in terms of build quality and effectiveness in use, but the Premi-Air G35 offers exceptional value for money, especially if a suitable budget compressor is teamed up with it.

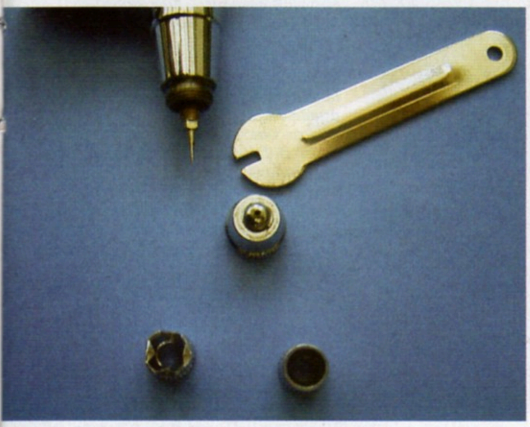
My personal choice would be the

INSET BELOW: Less well-defined areas of rust weathering were added.

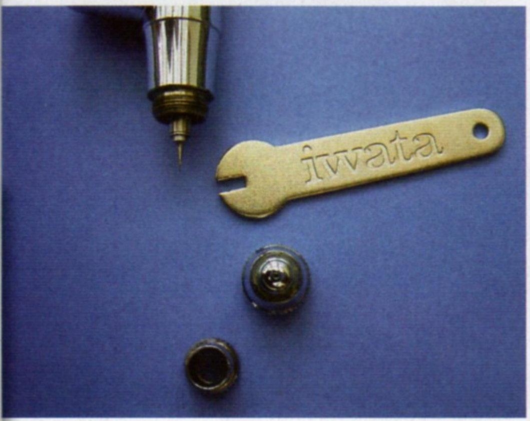


The lower hull was masked with tape and sprayed in red, note the slightly darker shaded areas of the hull, which were sprayed with the Premi-Air G35 using a darkened version of the Barley Grey Vallejo Model Air colour used for the base colour.

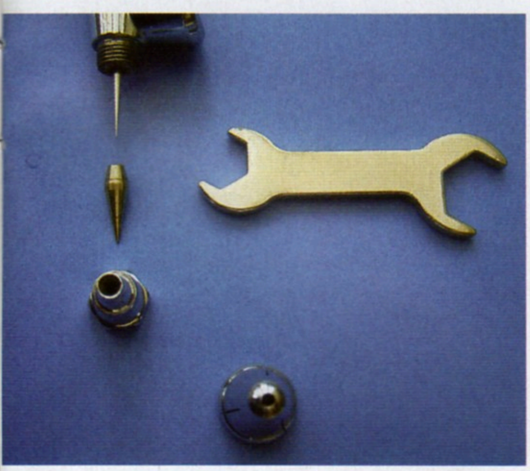
ABOVE LEFT: The seascape area of the vac-formed base was initially painted from underneath using translucent acrylic colours from Tamiya mixed with a clear automotive lacquer, it was difficult to control the depth of colour, and so was airbrushed from above in opaque colours followed by layers of clear lacquer. ABOVE RIGHT: A close up of the newly sprayed seascape, too many colours were mixed, and blended to list, but it was all topped with several layers of clear lacquer to achieve a deep 'wet' look.

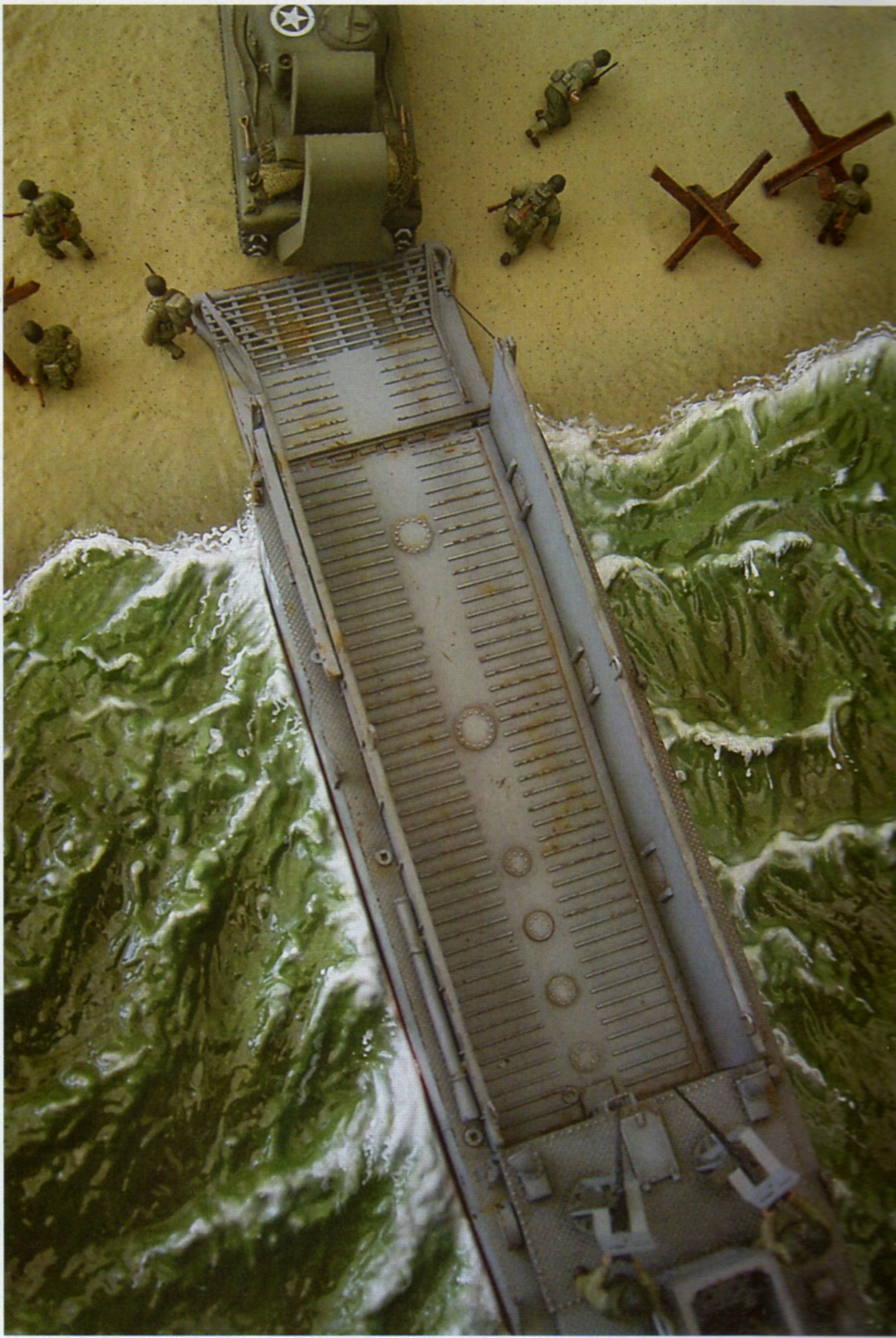


The Premi-Air G35 nozzle with cap removed, and spare 'crown cap' supplied, a spanner to remove the tip is also included.

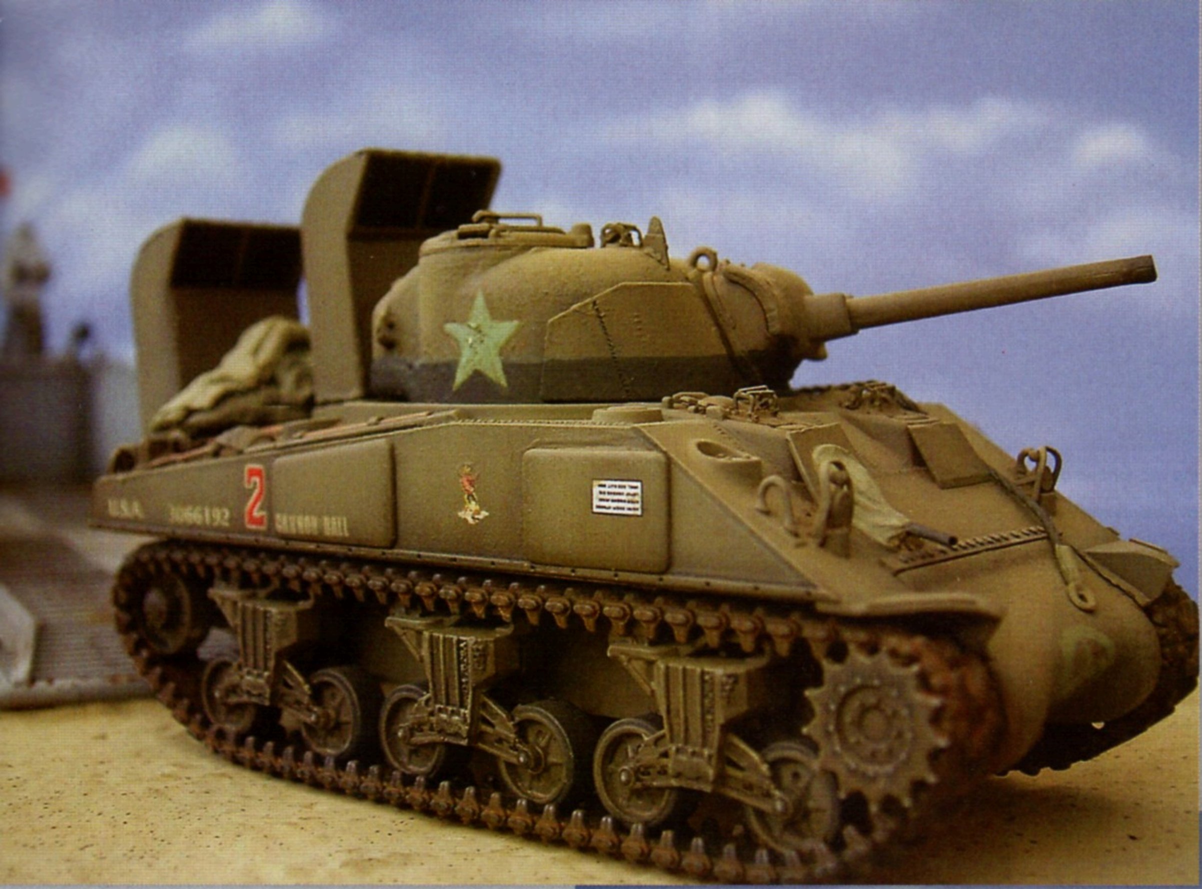


ABOVE: The Iwata Revolution BR is easily stripped for cleaning, as shown here with its spanner for tip removal. BELOW: The Paasche VJR has a self-centring nozzle tip, which doesn't require a sealing gasket as with the other two, but is made from brass, which is prone to wear unlike the G35 and Revolution. A protective metal cap is also supplied to protect the needle and tip.





An 'aerial' view of the seascape gives an idea of the contours and the many shades of blues and greens that were used, white was used for the foam, and some brush painted detailing was added where the waves break on the shoreline.



LEFT: Dragon's deep wading Sherman was airbrushed using Lifecolor's Olive Drab set of colours.

BELOW: The Sherman supplied with the landing craft was also painted using the Life Colour Olive Drab set of colours, using a mixture of all three airbrushes to asses their capabilities.

BOTTOM LEFT: A close up showing seascape, and added use of brush applied white details on surf.

BOTTOM RIGHT: The finished landing craft photographed against a cloud background. A large piece of card was brush painted using household blue emulsion, and then clouds were airbrushed using matt white acrylic sprayed from the Iwata Revolution.

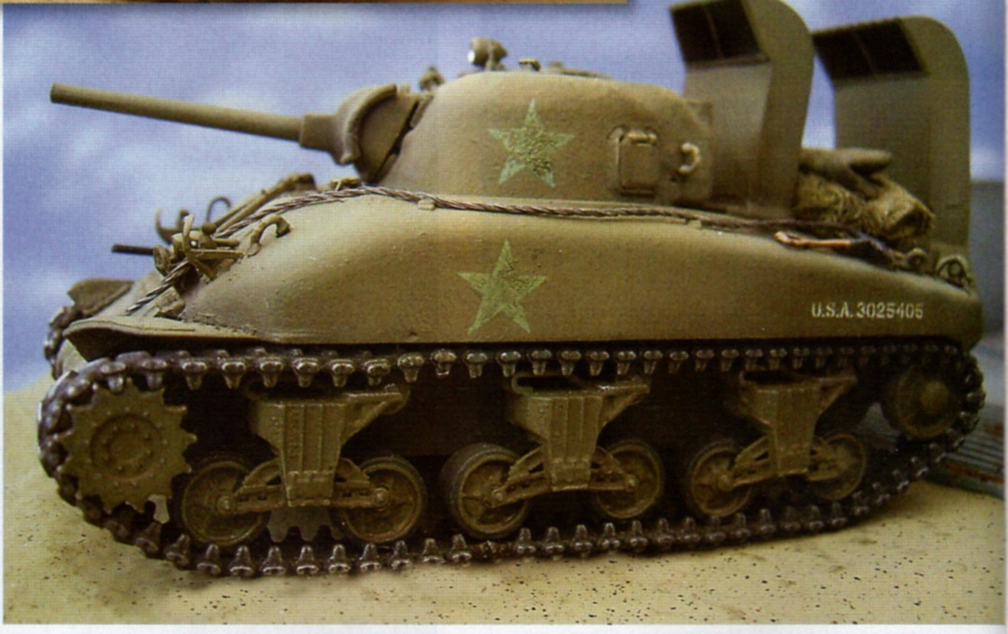
Revolution based on my experience of Iwata's quality, but I would recommend that you contact The Airbrush Company who can give excellent advice on your personal requirements, as they have many combinations of airbrush and compressors to suit individual needs and budgets.

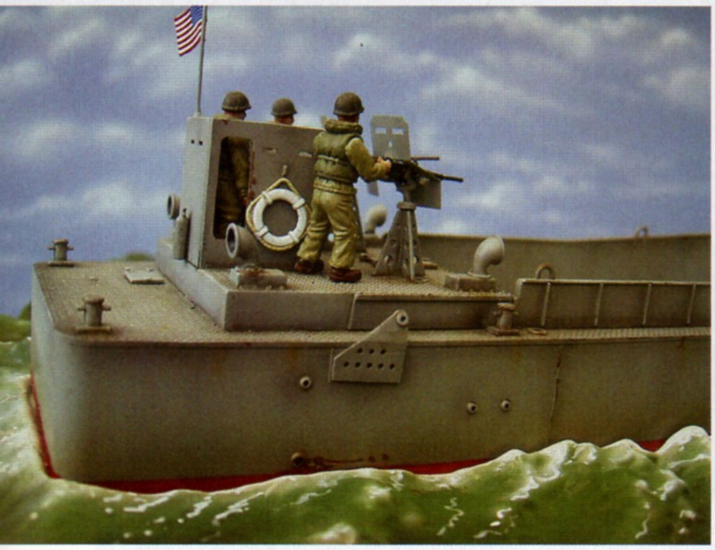
Price Increases

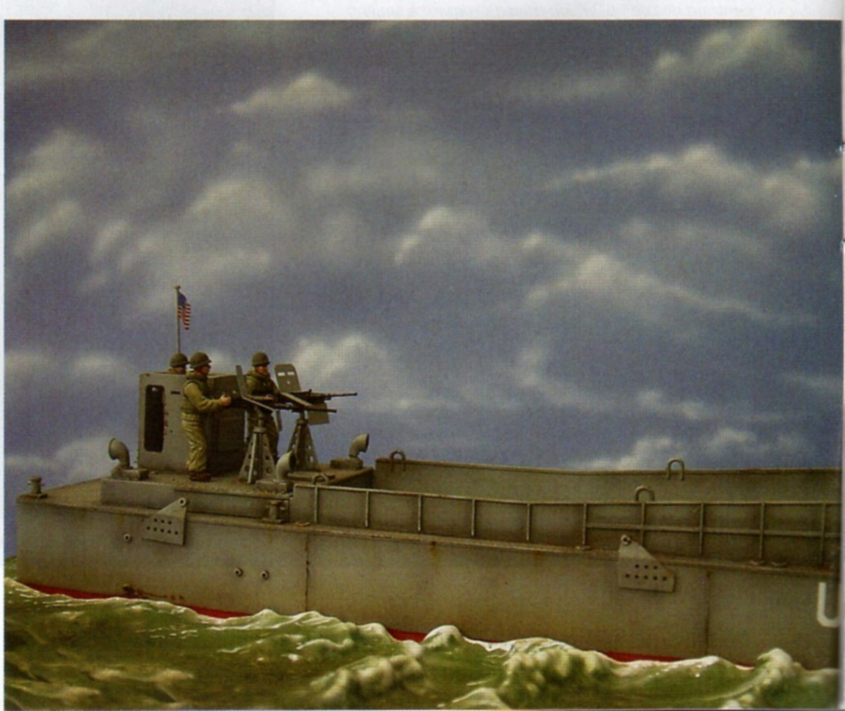
Many thanks to Alex and all at the Airbrush Company for supplying our airbrushes under test this issue. As a final check, please note the price increases, which are as follows:
Paasche VJR £86.99 inc VAT
Iwata Revolution BR £79.99 inc VAT
Premi-Air G35 £34.49 inc VAT

Source

The Airbrush Company, Marlborough Road, Lancing Business Park, Lancing, West Sussex BN15 8UF. Tel: 08700 660 445. Fax: 08700 660 817. www.Airbrushes.com ■



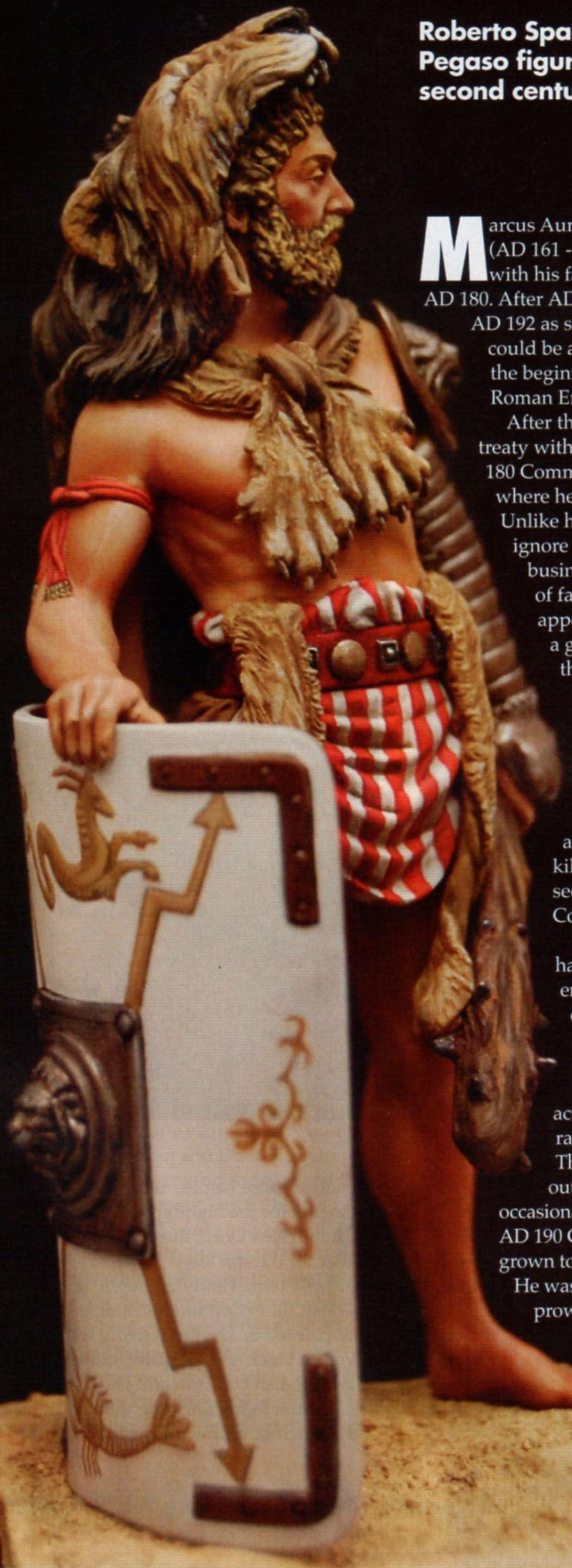




Commodus

The Roman Hercules

Roberto Spaolonzi paints the Pegaso figure of the infamous second century Roman emperor



Marcus Aurelius Commodus Antoninus (AD 161 - 192) ruled Rome jointly with his father Marcus Aurelius until AD 180. After AD 180 Commodus ruled until AD 192 as sole emperor of Rome. It could be argued that his reign marked the beginning of the decline of the Roman Empire.

After the signing of the Peace treaty with the Danube tribes in AD 180 Commodus returned to Rome where he began his 12-year reign. Unlike his father, he seemed to ignore the running of the state business, leaving it in the hands of favourites who he had appointed himself. This caused a great deal of dissatisfaction that led to several attempts to overthrow him, most notably an attempted assassination in which his eldest sister Lucilla was involved. Commodus had the conspirators executed and his sister exiled and later killed. This was followed by a second conspiracy, but again Commodus came out on top.

By now Commodus had eliminated most of his enemies, after the latest coup attempt he moved out of Rome to his family estate in Lanuvium. Here he pursued his favoured activities, chariot racing, horse racing and gladiatorial combat. These activities were carried out mostly in private, but also occasionally in the public arena. By AD 190 Commodus' vanity had grown to megalomaniac proportions. He was very proud of his physical prowess and he thought of himself as the reincarnation of Hercules. Many statues in Rome depict him wearing a lion skin headdress and carrying a club.

Many of the statues and busts of Commodus depict him as the Greek hero Hercules – complete with lion skin headdress and club.

After the fire that destroyed most of Rome in AD 192 Commodus held Plebeian games where he killed animals in the mornings and was involved in Gladiatorial combat in the afternoon, naturally winning every fight. However, these were his last games before he was assassinated by being strangled in his bath on 31st December AD 192.

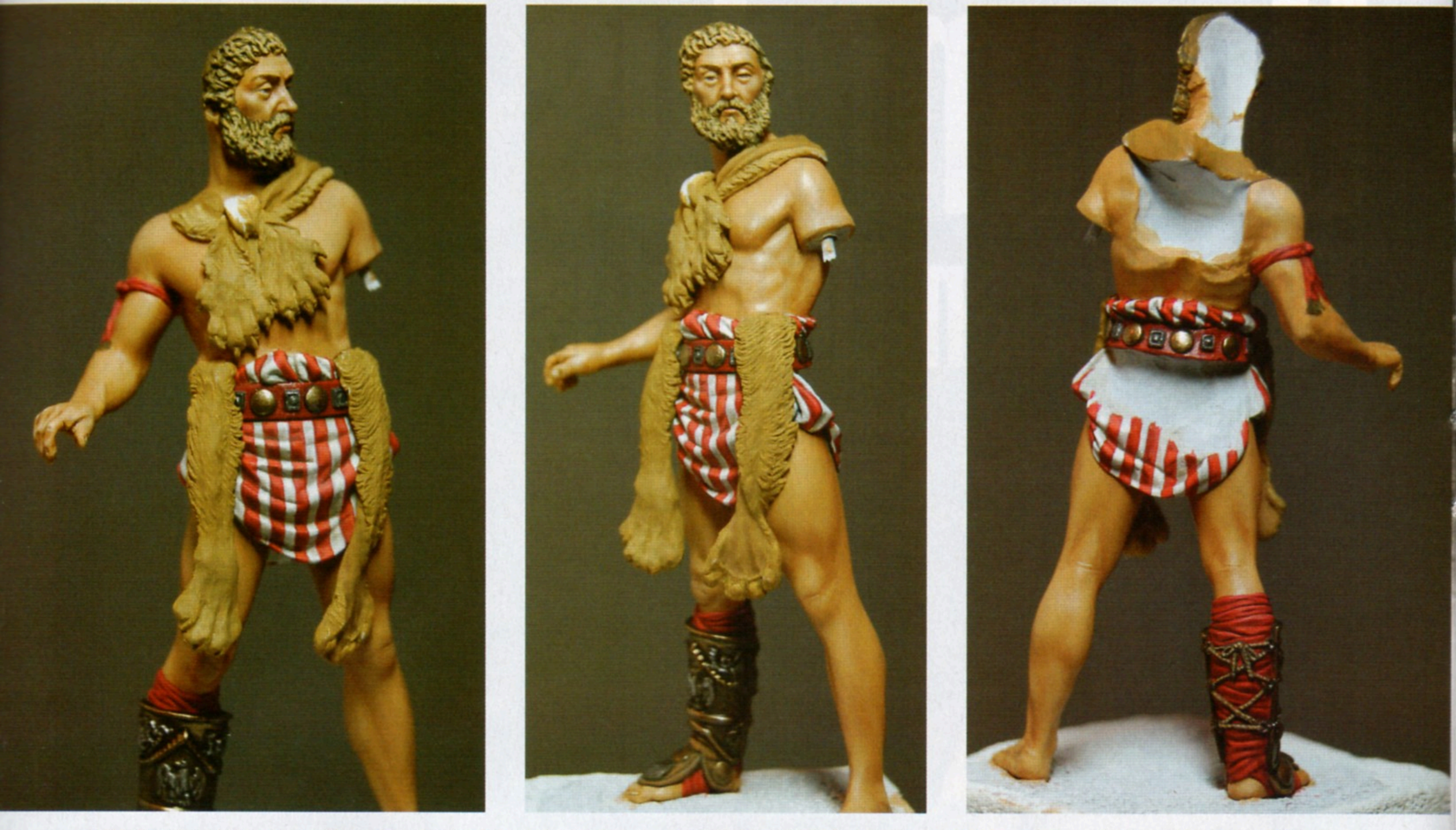
After his death the Senate declared him a public enemy. He would, however, be rehabilitated by Emperor Septimus Severus in AD 195 in defiance of the Senate that opposed the move. Accounts of chronicles of the time are unfavourable and his behaviour in the arena often created disgust among Roman people and may have contributed to his assassination.

The figure

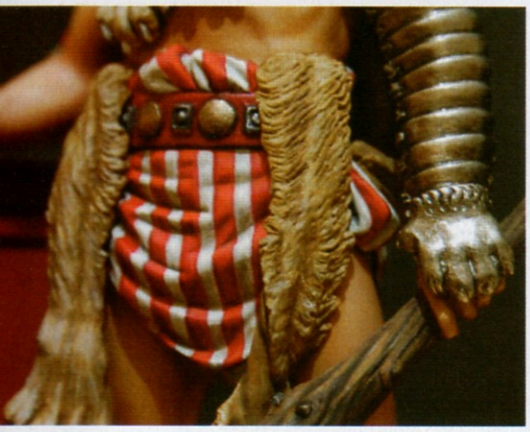
The 75mm (1:24 scale) figure of Commodus, like most Pegaso figures, is simply outstanding. There is very little cleaning to do on the moulding lines and some filing is required to ensure that all the parts fit perfectly (so to avoid nasty shocks once the figure is painted, in some cases enough to cause small heart attacks). Andrea Jula's sculpting is excellent and the figure once put together looks very elegant. Detail is crisp and the lion skin is brilliant and the face of the lion is particularly realistic. It must be noted that the figure appears to be left-handed, and by all accounts Commodus was left-handed and it's reported that he boasted frequently about this fact.

The idea

This figure stayed on my shelf for about a year. I always thought that it was 'very restrictive'. Flesh is flesh and the lion skin can be done one or two ways, leaving only the shield and the loincloth. After reading about Commodus I thought of giving him a colour scheme



ABOVE: Painting in progress on Commodus. At this stage the flesh tones are not yet completed. BELOW: The lion's head shows many 'veils' (filters or washes) of different colours including Red Leather, white and light brown.



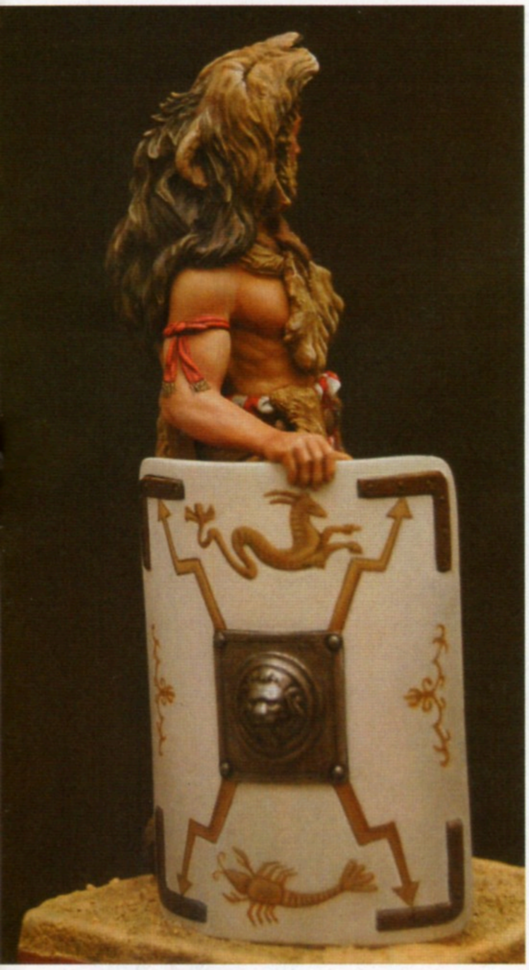
The belt holding the loincloth was painted in oil colours using Cadmium Red Deep and Raw Umber.

reminiscent to the colour of the American circus. I left the blue out because it would have given the game away and it would look out of place. So I went for the red stripes on the loincloth and the white and yellow shield. The design of the shield has the thunderbolts of Zeus and the zodiac symbols, Capricorn and Cancer, under which Commodus was born.

The paints I used

After cleaning the moulding lines, preassembling and test fitting the parts, including the base, I primed the figure using Games Workshop Skull White. At this stage only the head was glued to the rest of the body - using Araldite. I began with the flesh tones, which I painted in oil colours. After applying an undercoat in acrylic using a mix of Vallejo Sunny Skin tone, Red Vermillion, English Uniform and black, I mixed Yellow Ochre, Naples Yellow and white, Red Cadmium Deep, Burnt Umber and a touch of Raw Umber. In order to be able to use this same mix of oil paint throughout the course of painting the figure I stored the oil paint mix in the freezer. It kept for more than two weeks giving me enough time to work the shadows and lights from the same mix. My good friend Brian Snaddon gave this paint preservation tip to me.

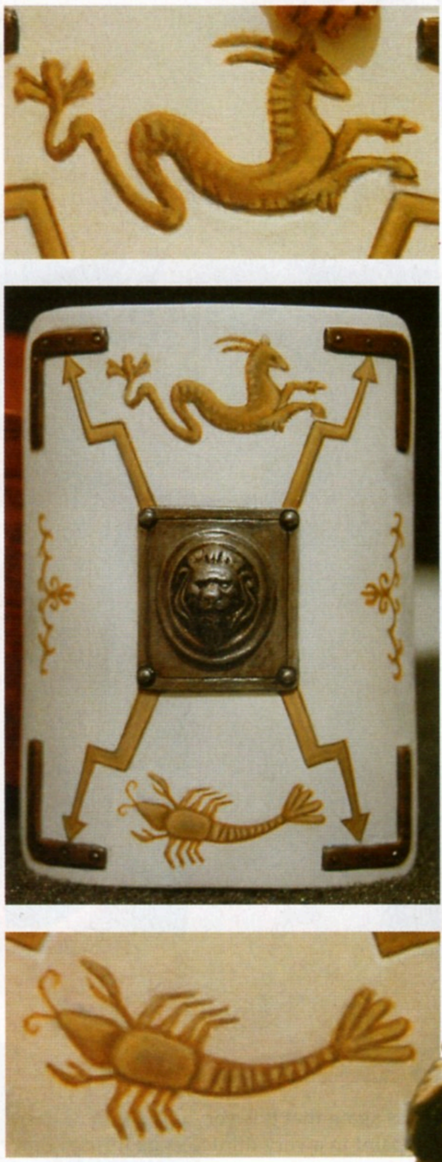
I added more Naples Yellow and White to the mix for the highlights and more Cadmium Red Deep, Burnt Umber and Raw Umber for the shadows. For the very deep shadows I used Vandyke Brown, and a touch of Cobalt Blue. Commodus' hair and beard were painted in acrylics starting with a mix of Vallejo black and English Uniform. I then mixed English Uniform and Dark Flesh for the medium lights finishing with Dark Flesh and a touch of yellow for the highlights.



Lion skin

The lion skin was painted in acrylics beginning with a mix of Vallejo Desert Yellow, Dark Sand, and Leather Brown and a touch of black. This was gradually highlighted adding more Dark Sand and Desert Yellow to the mix. For the shadows I have used many 'veils' (washes or filters) of well-diluted acrylic paint (with distilled water) ranging from 'reddish-browns' to very dark browns. Once all this was done I started to emphasize the fur itself, by painting the singular strands of hair using a mix of Dark Sand, Desert Yellow and a touch of white for the areas of light and the original base mix for the shadows area. Thanks to the excellent sculpting this process is quite easy to accomplish and although time consuming it gave the fur a very realistic look.

The tip of the tail and the crown were painted in a much darker hue than I'd used for the rest of the skin. Using a mix of Leather Brown, black and a touch of English Uniform the highlights were done by adding more English Uniform and Dark Flesh to the mix. In the areas around the ears and the cheekbones I added more Desert Yellow so that the colours would fade into each other. Once I was happy with the general effect I painted some white just under the eyes and under the nose. Two or three coats of well diluted 'off white' acrylic did the trick. At this point I applied a 'veil' of Raw Umber oil colour diluted with white spirit. This was applied in a very controlled manner in an attempt to emphasize the sculpted detail.



ABOVE: The shield emblazoned with Zeus thunderbolts and the zodiac signs of Capricorn and Cancer as can be seen on statues of Commodus in Rome.

Painting whites and reds

As a break form the norm I decided to use Vallejo Ivory White instead of 'white'. This is more noticeable on the shield than on the loincloth and in my opinion it gives a warmer feeling to the colour. Ivory White was mixed with English Uniform, Prussian Blue and a touch of black and was gradually highlighted by adding more Ivory White to the base mix. Pure white was used very sparingly and only for the point of maximum lights. The red stripes were first drafted using a greyish colour (easy to correct if anything goes wrong) and then painted with a mix of Cadmium Red and Russian Green. This was highlighted gradually using, Flat Red, Scarlet and Sunny Skin Tone.

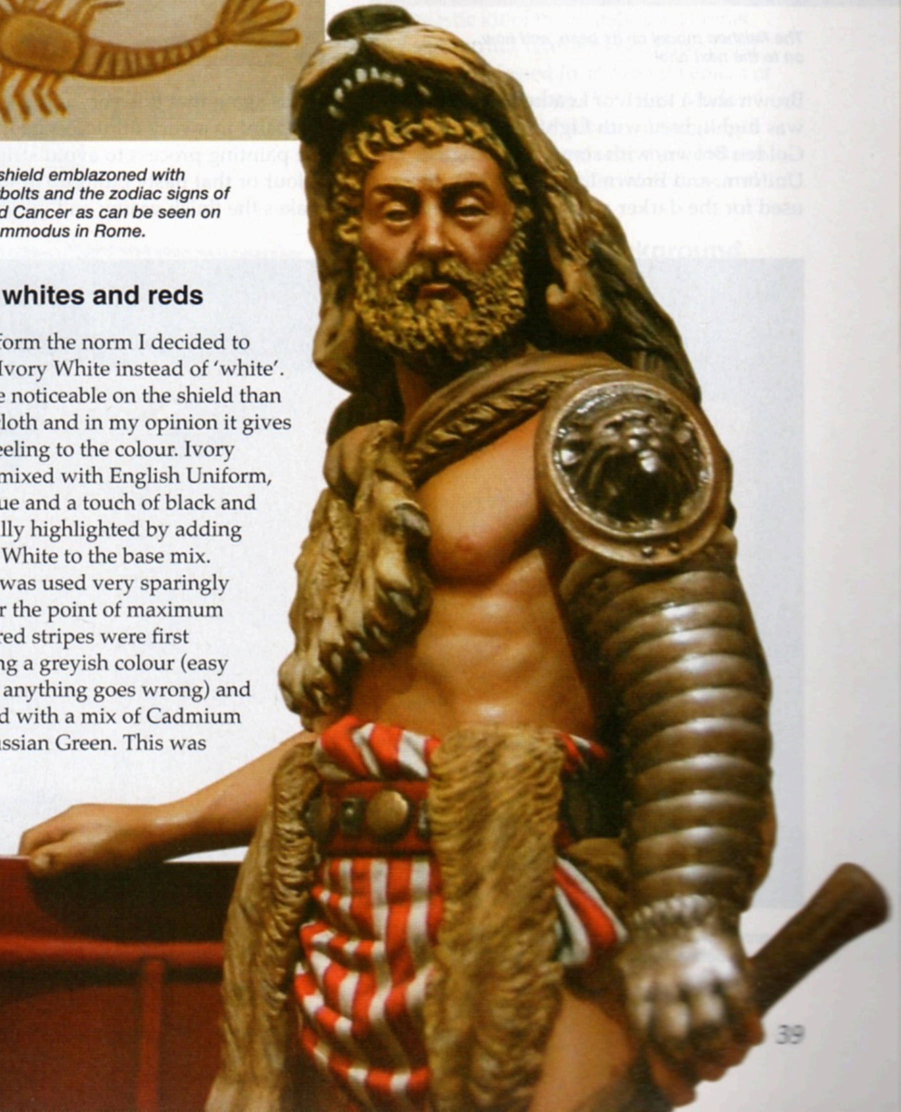
In order to 'blend' acrylics, it is important to apply them in a very diluted state after thinning them with distilled water. For the final highlights and shadows the colour on the palette should be no more than 'dirty water'. The red cloth around the right leg was painted as described, the only difference being I used Andrea's Napoleonic Red instead of Cadmium Red in the base mix.

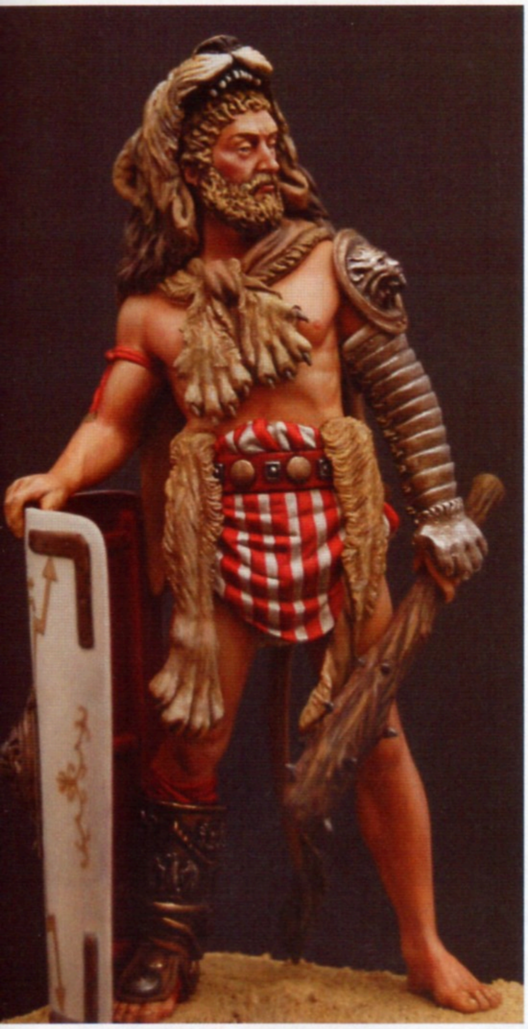
Metals

For the areas of bare metal, the left arm and the centre of the shield, I burnished the white metal the figure was cast in. This had been masked off using masking tape prior to priming the figure, and two or three thin washes of Raw Umber oil colour were then given. Once this had dried I applied Tamiya Smoke X19. Highlights were done using silver printer's ink mixed with some Humbrol Gloss Black 21. For the brass colours I used gold printer's ink on an undercoat of acrylic brown. Again the ink was mixed with Humbrol Gloss Black 21 and highlighted by adding some more silver printer's ink.

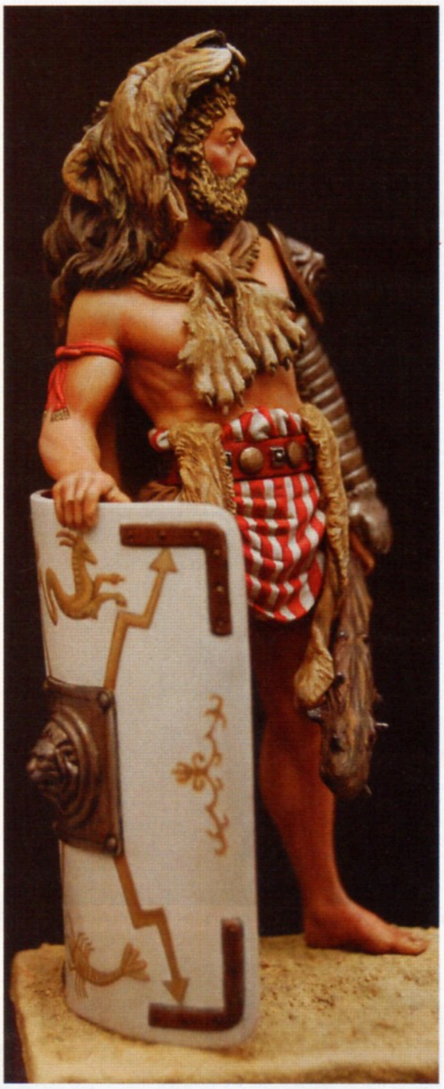
The shield

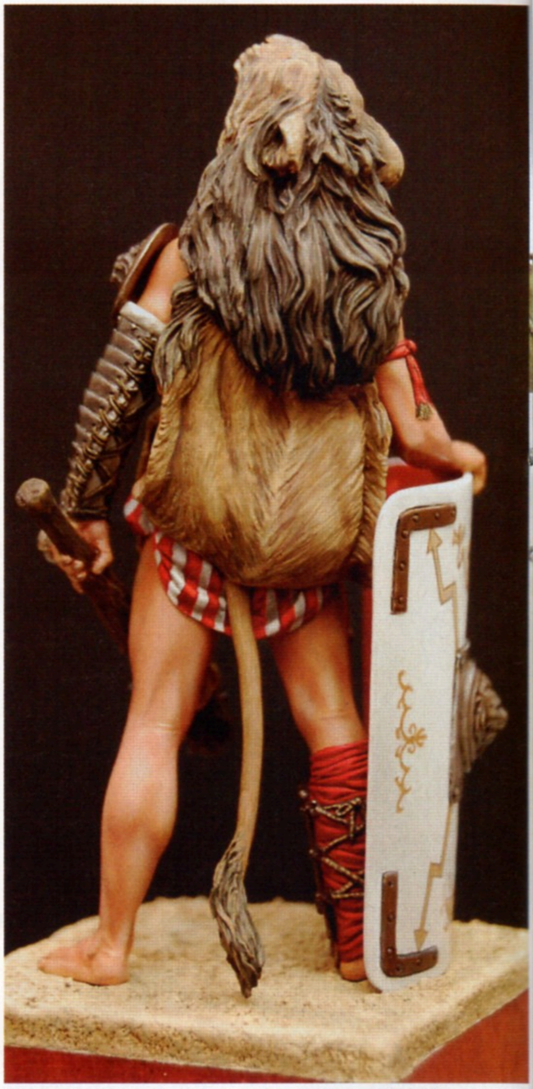
The white of the shield was first painted with Ivory White, English Uniform and Prussian Blue. Again I have drafted the design using a greyish colour trying to keep everything as symmetrical as possible. The yellow is a mix of English Uniform, Gold



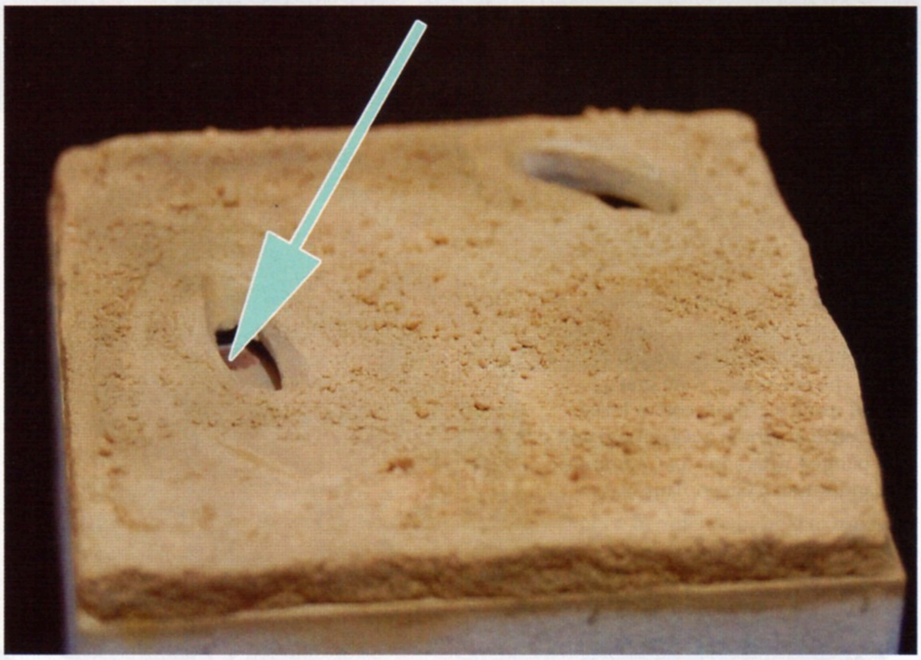


The finished model on its base, and now… on to the next one!





Brown and a touch of Leather Brown. This was highlighted with Light Flesh and more Golden Brown, with some more English Uniform, and Brown Leather and Black were used for the darker areas. I would like to stress again that it is very important to keep the paint in a very diluted state throughout the painting process to avoid stripes of colour or that nasty build up of paint that makes the finish grainy and untidy.



The groundwork completed. Note the hole to accept the peg in the right foot where it has been drilled through into the wooden base.

Groundwork

I wanted to represent Commodus in the arena, so the groundwork was kept very simple and I used the base provided with the kit. Milliput was used to fill in the edges around the wooden base and some finely ground cat litter was then glued to the base using white glue. This was primed using Games Workshop Skull White and once this primer had dried the base was airbrushed with Vallejo Dark Sand with a touch of English Uniform added. Thin 'veils' of oil colour were then applied and finally the ground was dry-brushed with an oil colour mix of Yellow Ochre and White.

Acknowledgement

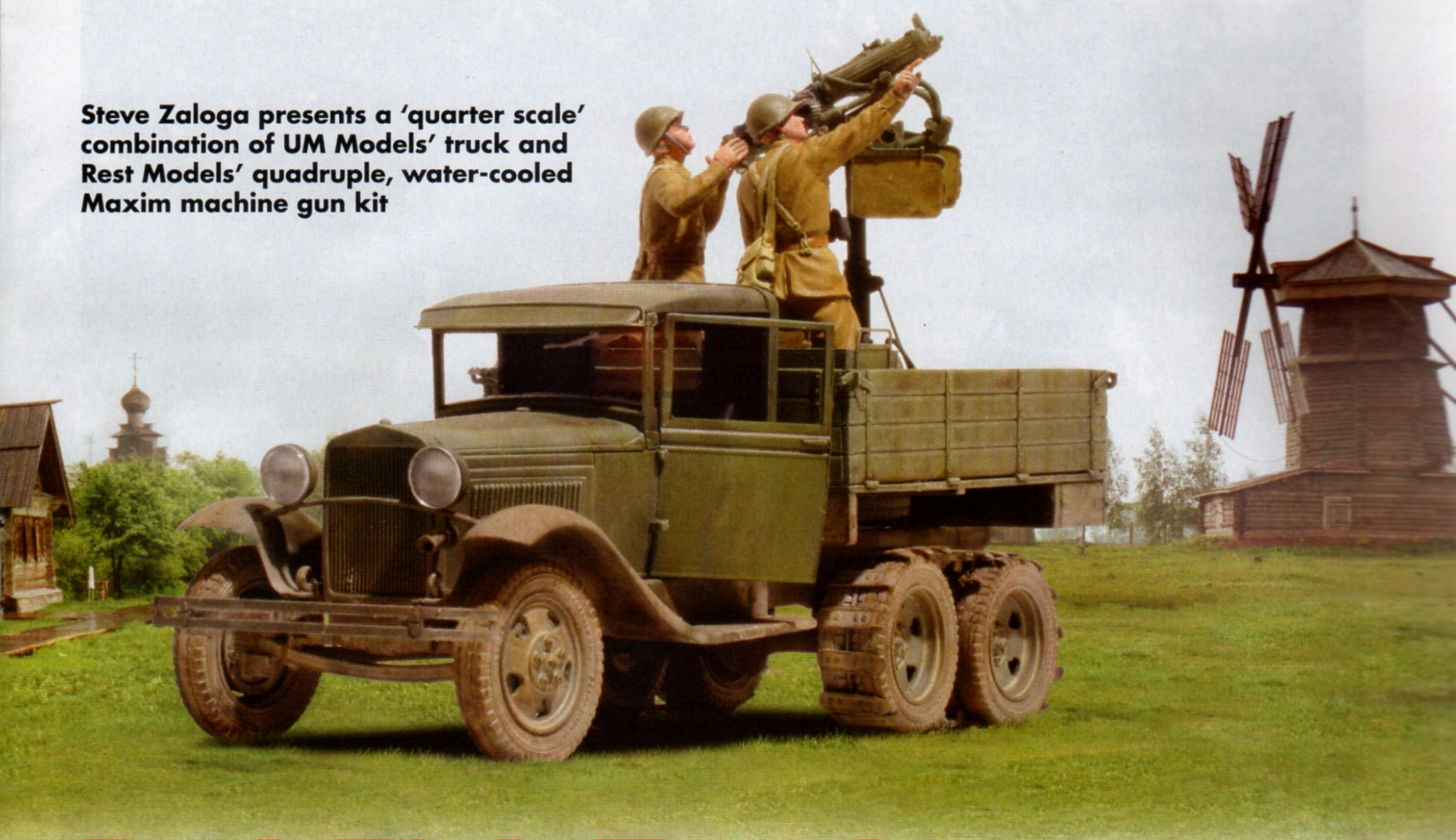
To all my good friends on Planet Figure who gave me valuable advice during the painting of this figure.

www.robertospaolonzi.moonfruit.com

Product Availability

Pegaso figure kits and accessories are available in the UK from Historex Agents, Wellington House, 157 Snargate Street, Dover, Kent CT17 9BZ. Tel: 01304 206720.
Fax: 01304 204528.
sales@historex-agents.co.uk
www.historexagents.com Commodus (75-39) costs £41.45 plus £4.99 p&p. Pegaso Models www.pegasomodels.com ■

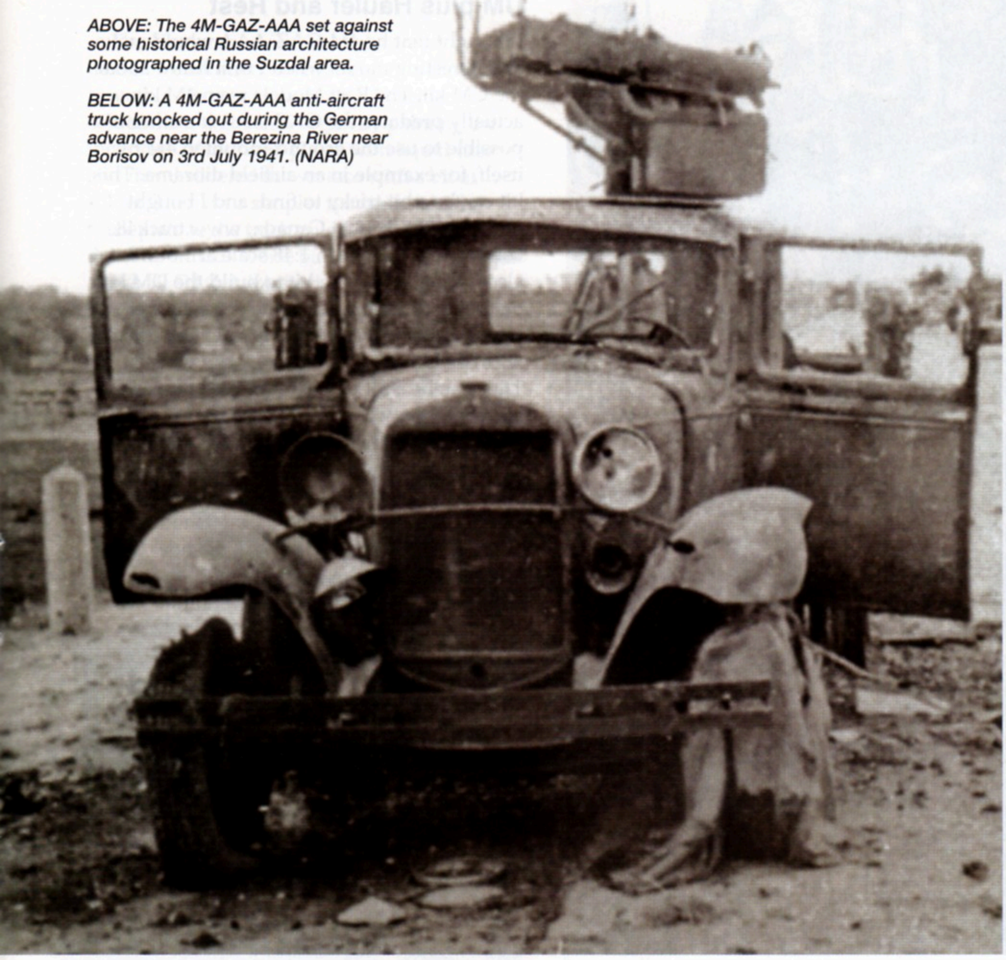
Steve Zaloga presents a 'quarter scale' combination of UM Models' truck and Rest Models' quadruple, water-cooled Maxim machine gun kit



Red Flak Truck

ABOVE: The 4M-GAZ-AAA set against some historical Russian architecture photographed in the Suzdal area.

BELOW: A 4M-GAZ-AAA anti-aircraft truck knocked out during the German advance near the Berezina River near Borisov on 3rd July 1941. (NARA)



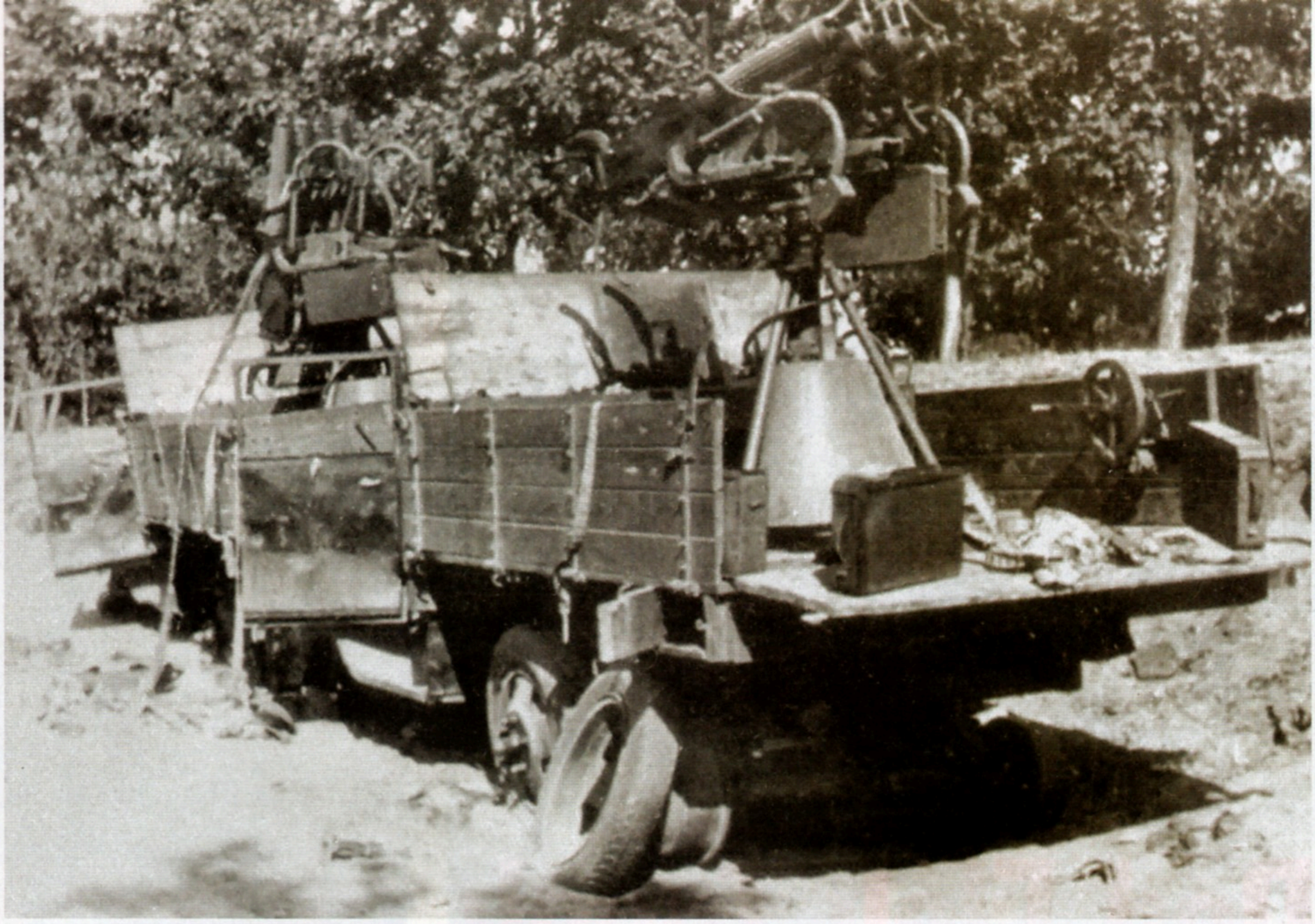
The field of 1:48 scale military models has been slowly, but surely, expanding beyond Tamiya's offerings with other companies also taking up the scale – the latest being Italeri announcing four 'new' 1:48 scale plastic kits for 2009.

UM Models from Ukraine offered a 1:48 scale plastic kit of the widely used Soviet GAZ-AAA truck late last year. However, I was more interested in an armed version of the GAZ, and fortunately, as Rest Models does the 4M anti-aircraft mounting, which is appropriate to this vehicle, these formed a natural pair to cover this interesting anti-aircraft truck.

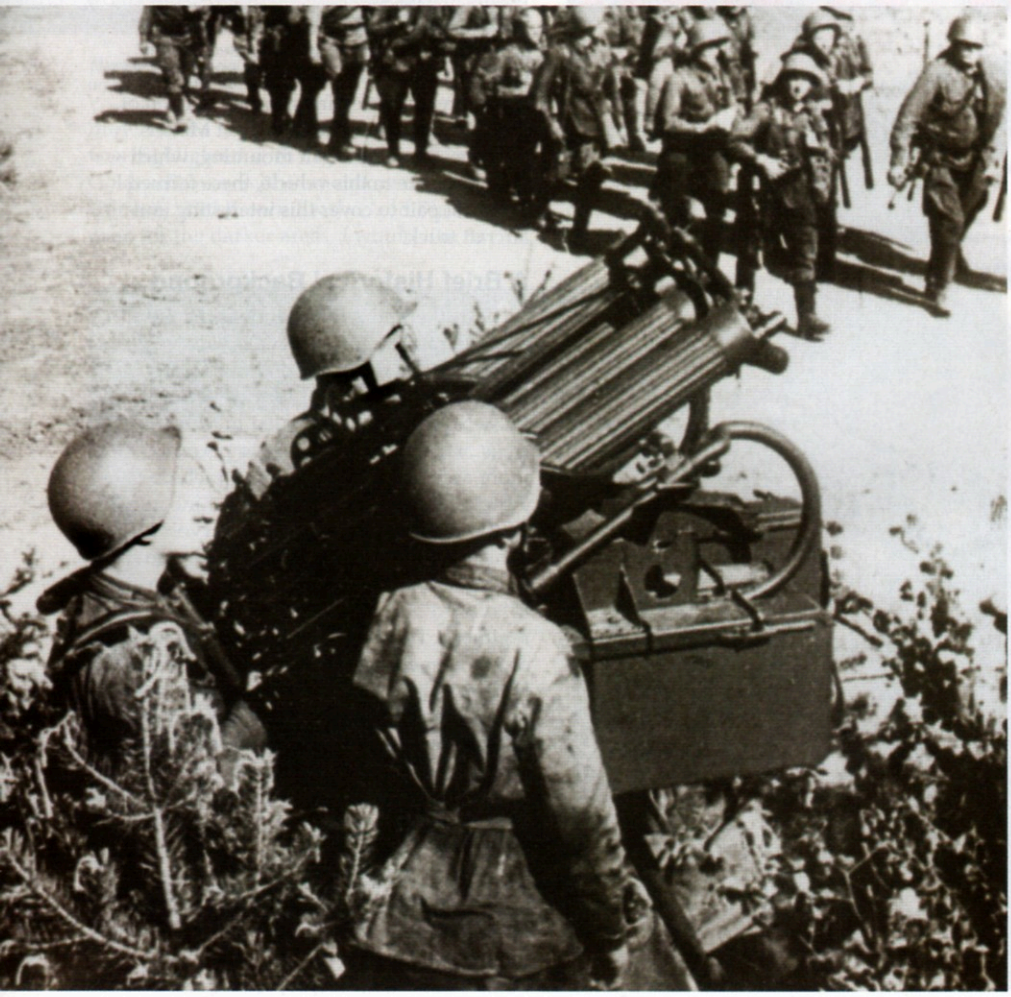
A Brief Historical Background

In 1931, the Red Army adopted the 4M anti-aircraft mounting developed by F.V. Tokarev. This was a fixed anti-aircraft mounting consisting of four of the well-known Maxim water-cooled machine guns on a heavy mounting to permit more accurate fire. The mount included a piping system to feed the machine gun water-cooled jackets from a reservoir in a conical tank under the guns. The standard allotment of these weapons was 18 per infantry division and four per infantry regiment. They were intended for fixed site defence, such as headquarters, or critical tactical objectives like bridges. They were also issued to dedicated anti-aircraft units and to the other services such as the navy and air force for base defence.

Eventually, a mobile version was developed which mounted the 4M on the GAZ-AAA truck, sometimes called the 4M-GAZ-AAA. This was essentially the same as the basic 4M, but the truck had a large ammunition rack and tool bin added immediately behind the cab. This anti-aircraft vehicle was deployed with the new



ABOVE: A pair of abandoned Red Army 4M-GAZ-AAA anti-aircraft trucks during the summer 1941 fighting. BELOW: Red Army 4M mounting on a truck covered with tree branches for camouflage acts as antiaircraft defence for the columns of a Soviet infantry division on the march. The standard allotment of these weapons was 18 per infantry division and four per infantry regiment. (SovPhoto)

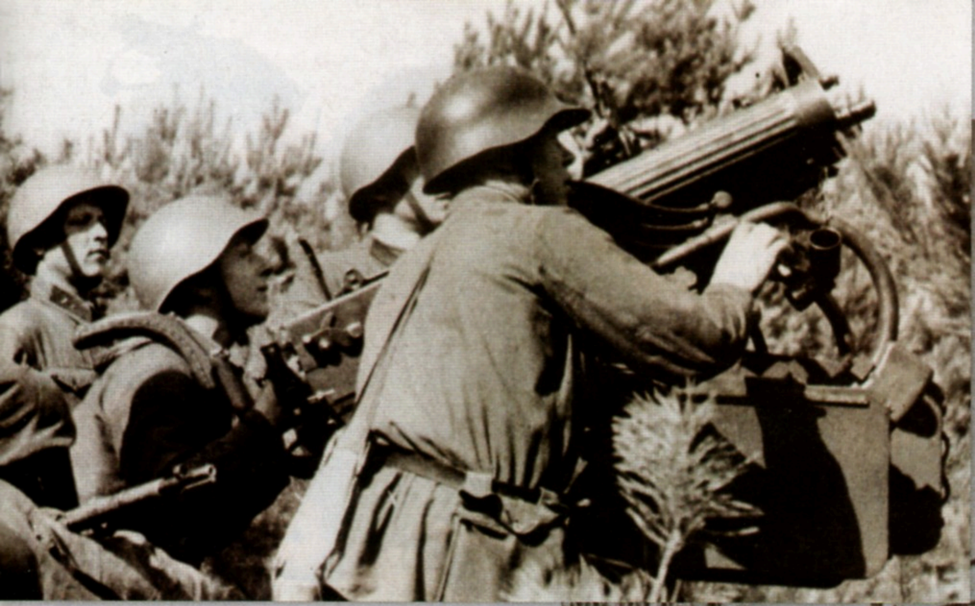


mechanized corps and saw extensive use in the 1941 summer campaign. They are less commonly seen afterwards, no doubt due to the heavy attrition of the *Barbarossa* battles.

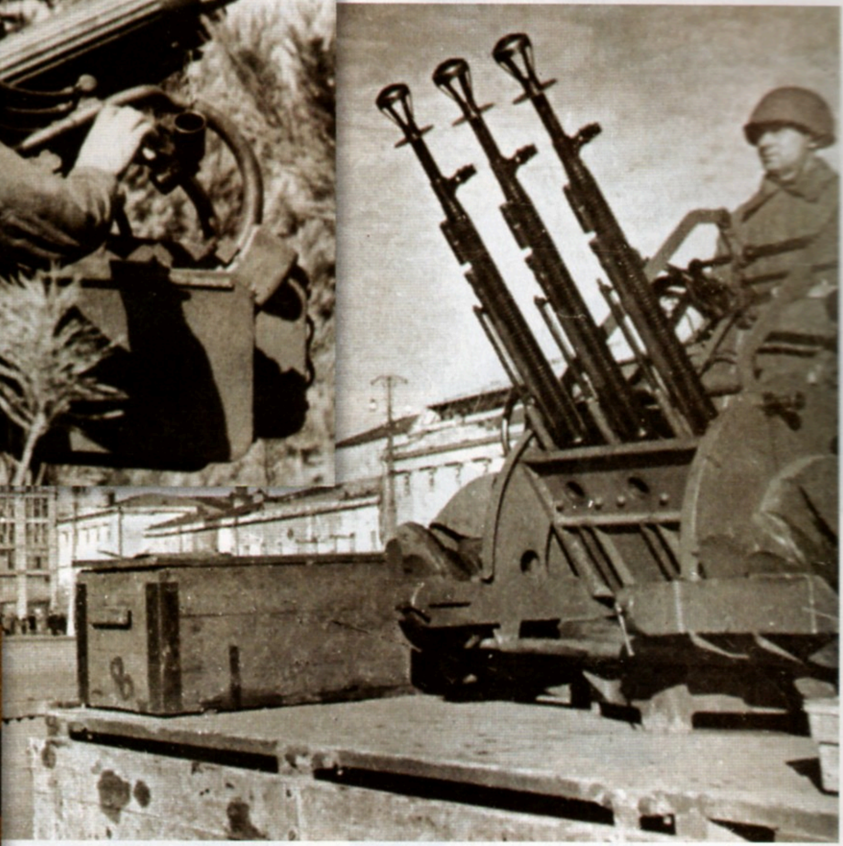
UM plus Hauler and Rest

I thought that he 4M-GAZ-AAA would make an interesting model when I first heard about the UM kit. The Rest Models resin 4M kit actually predates the GAZ-AAA kit, since it's possible to use the ground-mounted 4M by itself, for example in an airfield diorama. This kit can be a bit tricky to find, and I bought one from Track 48 in Canada, www.track48.com who specialize in 1:48 scale armour. I also decided to wait a bit to build the UM kit on the assumption that some after-market would become available. My one main dislike with the UM kit is the use of vinyl wheels. They can be a bit of a chore to clean up and I am not entirely confident with their shelf life, having had some vinyl tyres crack with time. In the event, Hauler was quick to the market with three separate aftermarket sets, a set of resin wheels (HLX48268), a basic photo-etch detail set (HLX48266) and a set of snow/mud tracks (HLX48269). I obtained these from Gaso.Line 48 in Paris, which is another 1:48 scale specialist shop.

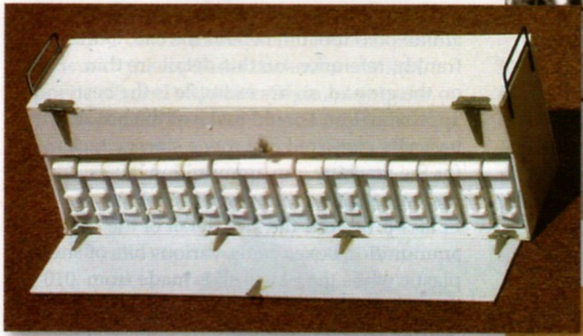
With all the bits on hand, I began work on the model. The UM kit is basically quite sound, though it reminds me a bit of old Airfix kits in terms of overall detail. It is not quite up to Tamiya standards, and there are the occasional 'rough bits'. The main structural work I dealt with first was the front mudguards, which I thinned out from below to make them look more, like stamped sheet metal. I assembled the chassis pretty much out of the box, however, with the exception of substituting the excellent Hauler resin wheels for the kit wheels.



ABOVE: The quadruple Maxim machine gun mounting needed a crew of three, including the gunner, to train the weapon in traverse and elevation. The NCO commanding the detachment stands to the rear of the gun. This is a 4M ground mounting. (SovPhoto)

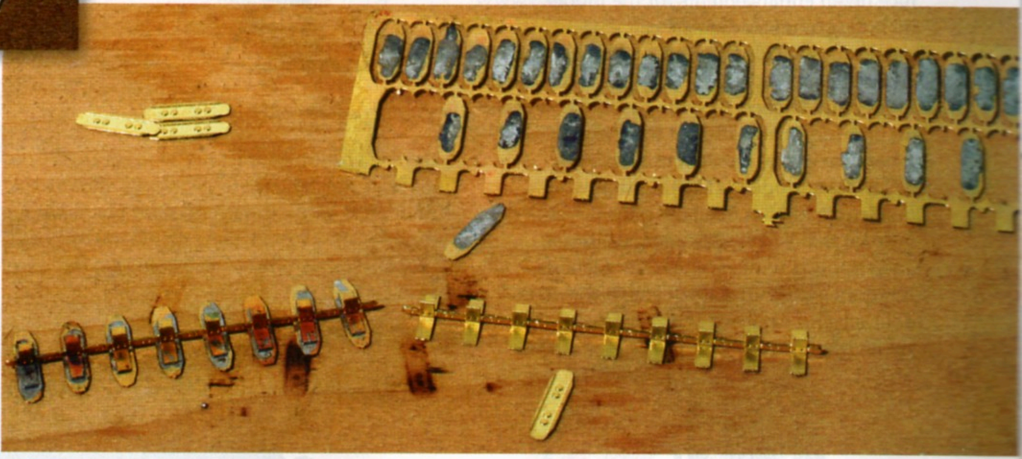


ABOVE: One of the lesser-known anti-aircraft versions of the GAZ-AAA truck used a triple 12.7mm DShK mounting as seen here.

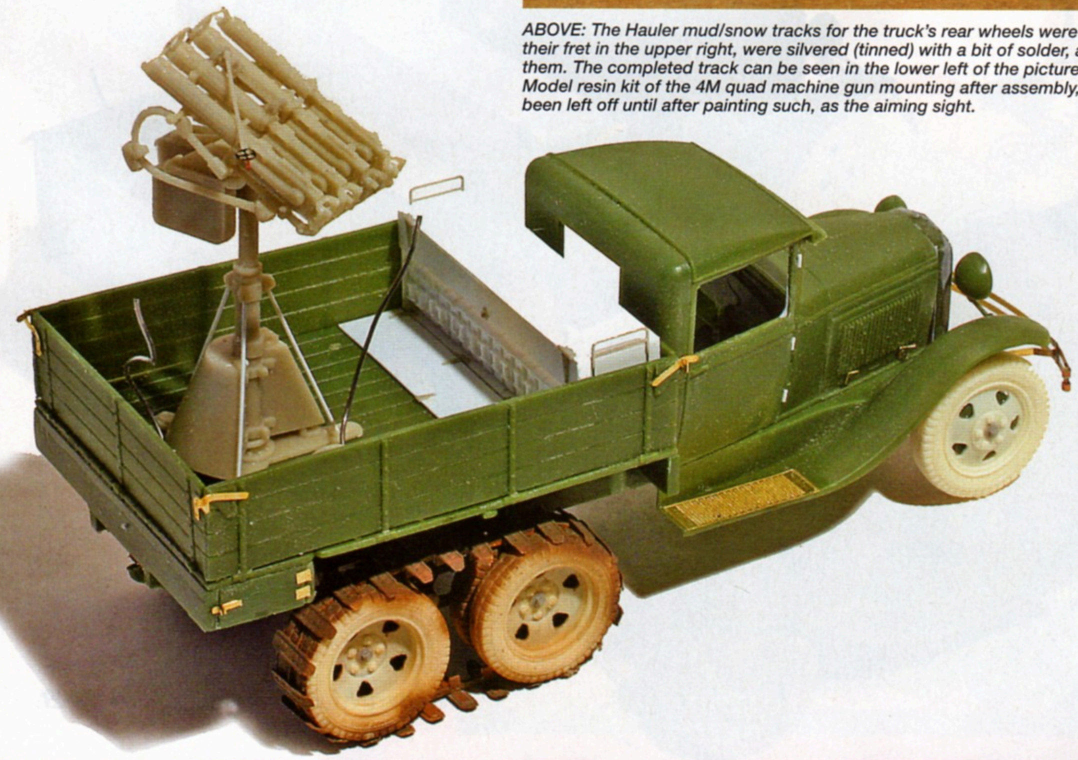


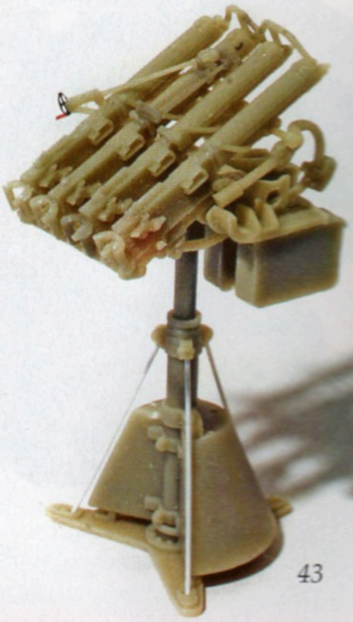
The ammunition/stowage box was scratch-built from sheet plastic.

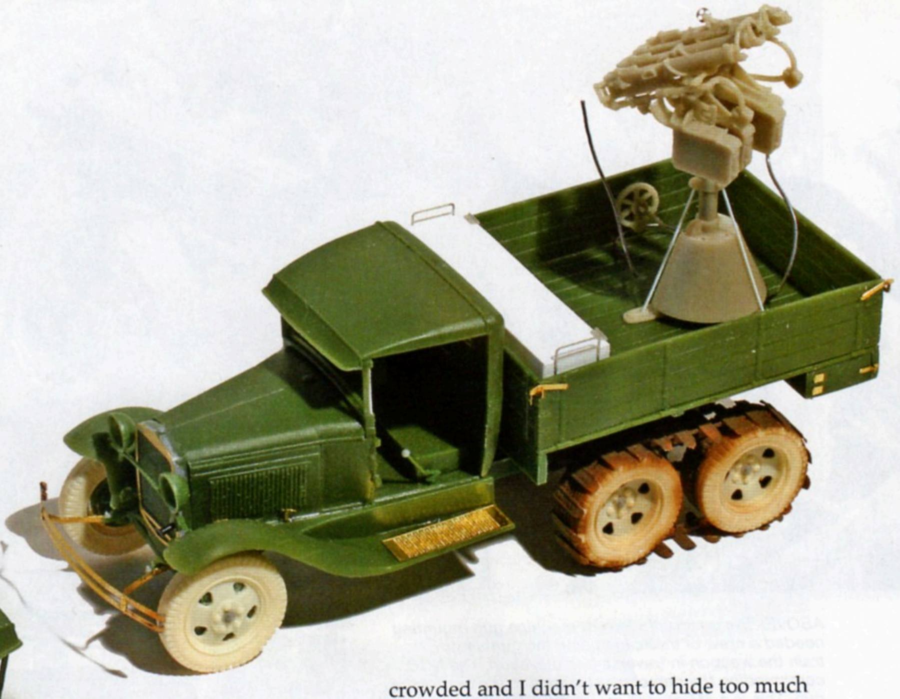
The Hauler mud/snow tracks are an intriguing addition, though a bit of a chore to assemble. To ensure durability, I decided to solder them together. I began by painting the inner face of the track plates with liquid flux and then I silvered the surface with a bit of solder. Then it's a simpler matter to join the track plate to the track guide sections. This is delicate, tedious work, but it is entirely optional as not all GAZ-AAA carried these tracks.

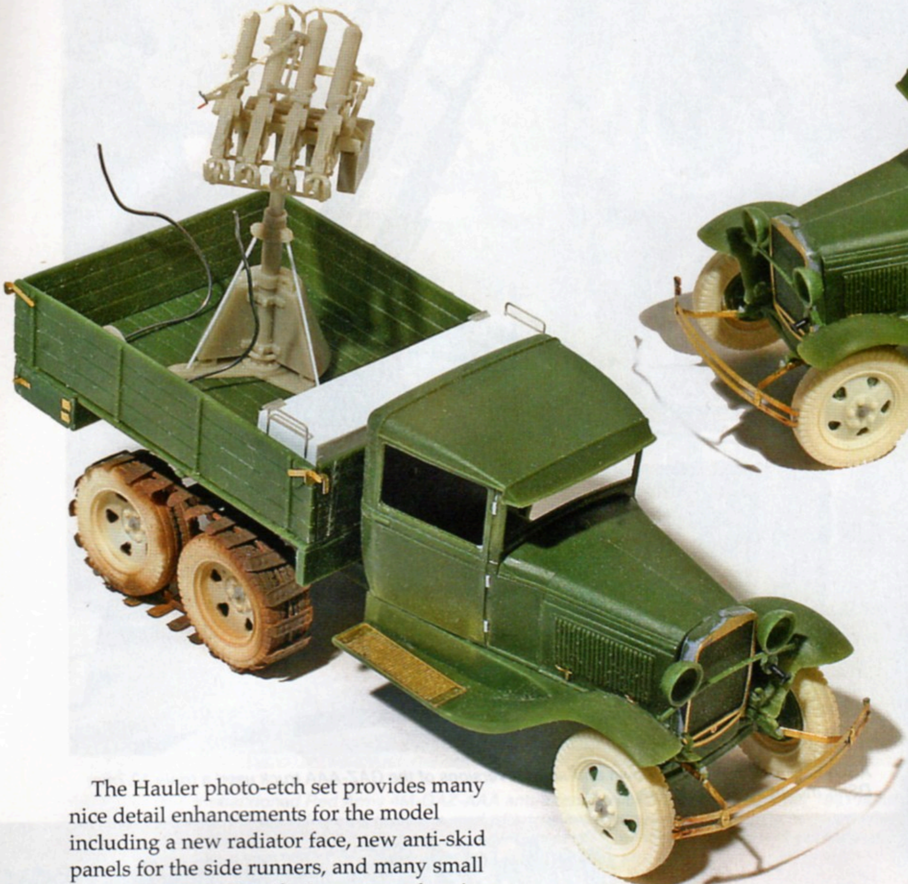


ABOVE: The Hauler mud/snow tracks for the truck's rear wheels were soldered together. The track plates, still on their fret in the upper right, were silvered (tinned) with a bit of solder, and then the track guides were attached to them. The completed track can be seen in the lower left of the picture. BELOW RIGHT: This is the excellent Rest Model resin kit of the 4M quad machine gun mounting after assembly, though some delicate smaller parts have been left off until after painting such, as the aiming sight.









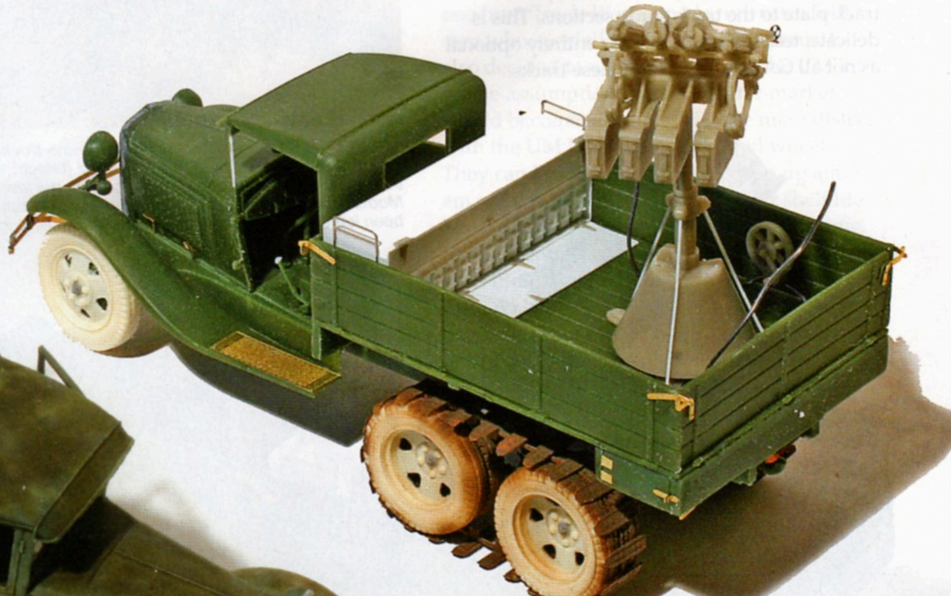
The Hauler photo-etch set provides many nice detail enhancements for the model including a new radiator face, new anti-skid panels for the side runners, and many small details bits including the bumper and various hinges and latches. In some cases, the original kit part has to be removed first, whereas in other cases, they are direct substitutes.

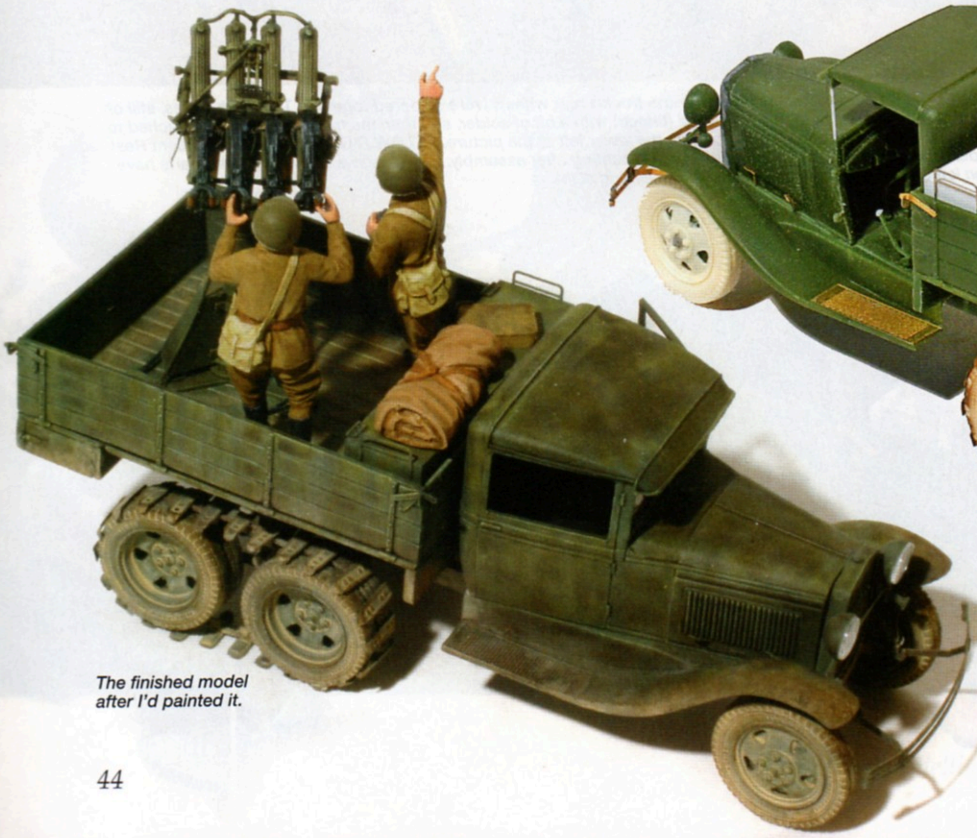
The Rest Models' 4M mounting with quadruple Maxim machine guns is a superb little kit that is well-designed, well-cast, and supplied with excellent instructions. It requires some care to assemble due to its delicacy and intricacy, but it is time well spent. My only addition to the model was the use of lead fishing wire to replicate the water hoses running to the cistern mounted under guns over the tripod floor plate. The kit comes with three crew members, the usual operating compliment, but I omitted one man as the rear bed of the truck was getting a bit crowded and I didn't want to hide too much of the gun detail.

The only necessary addition was the ammo box / tool bin behind the cab. Quite frankly, references on this detail are thin on the ground, so my example is the best approximation I could make of the box. It basically consisted of a row a storage racks for the machine gun ammunition boxes underneath, and a stowage tray above. I mass-produced the face detail of the ammunition boxes using various bits of sheet plastic while the box itself is made from .010 thou sheet plastic.

Finishing Off

The 4M-GAZ-AAA was finished in the usual Red Army 4BO 'protective green', a dark, dull green. Some GAZ-AAA had other commercial finishes, with the lower chassis finished in black. However, I stuck with an overall 4BO colour. I like to use a dull medium green in this scale, and my choice is usually Tamiya Field Grey XF-65 or JSDF Dark Green XF-73,





The finished model after I'd painted it.

LEFT: The Rest Models' 4M kit is attractive, not only because of the exquisite machine gun mount, but because it is supplied with a well designed three man crew set.

RIGHT: A close-up of the intricate resin 4M mounting from Rest Models.

which are fairly similar. I usually do some irregular over-sprays in a lighter and darker shade of green to break up the monotone finish and to add more natural colour depth.

The lower surfaces were painted in several earth shades, starting with Khaki Drab XF-51, followed by an irregular overcoat of JSDF Brown XF-72, and finally an overspray of Buff XF-57 on the more prominent bits. Once this was dry, I applied a dark wash on the upper surfaces of Holbein Sepia oil paint in a medium of Winsor & Newton Liquin and mineral spirits (white spirits) and a light wash on the undersides of Humbrol earth shades mixed with Windsor & Newton Titanium White oil paint, Liquin and mineral spirits. Once this was dry, I carried out a bit of dry brushing to pop out detail and also to further amplify the weathering effects, especially on the lower surfaces.

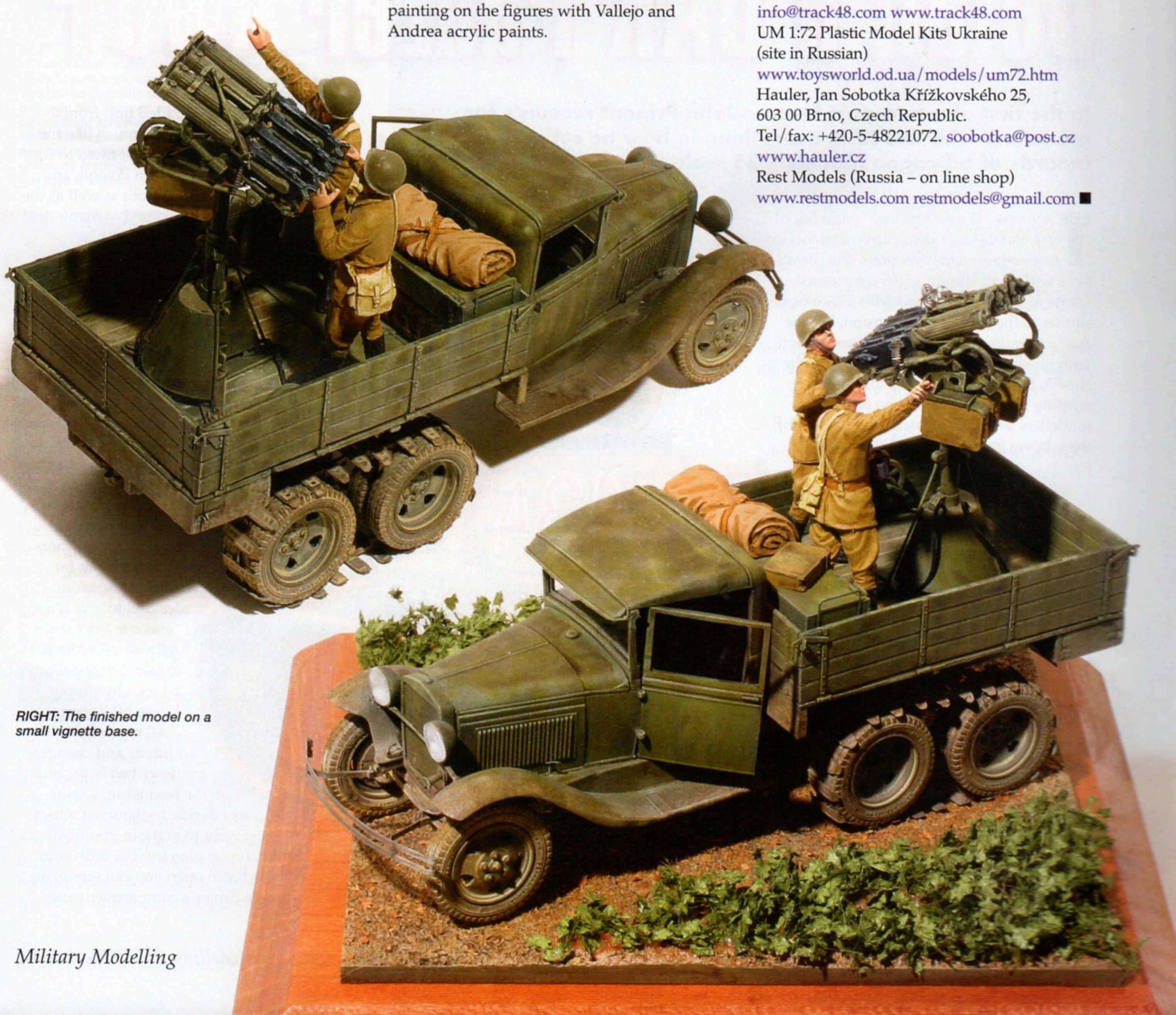
I painted the crew figures in acrylics, beginning with a base coat of Tamiya Dark (Panzer) Yellow XF-60 with an accent wash of distilled water, Liquitex 'Slow-Dri' Blending Medium, and Vallejo English Uniform acrylic paint. I did the remainder of the detail painting on the figures with Vallejo and Andrea acrylic paints.

Welcome Change

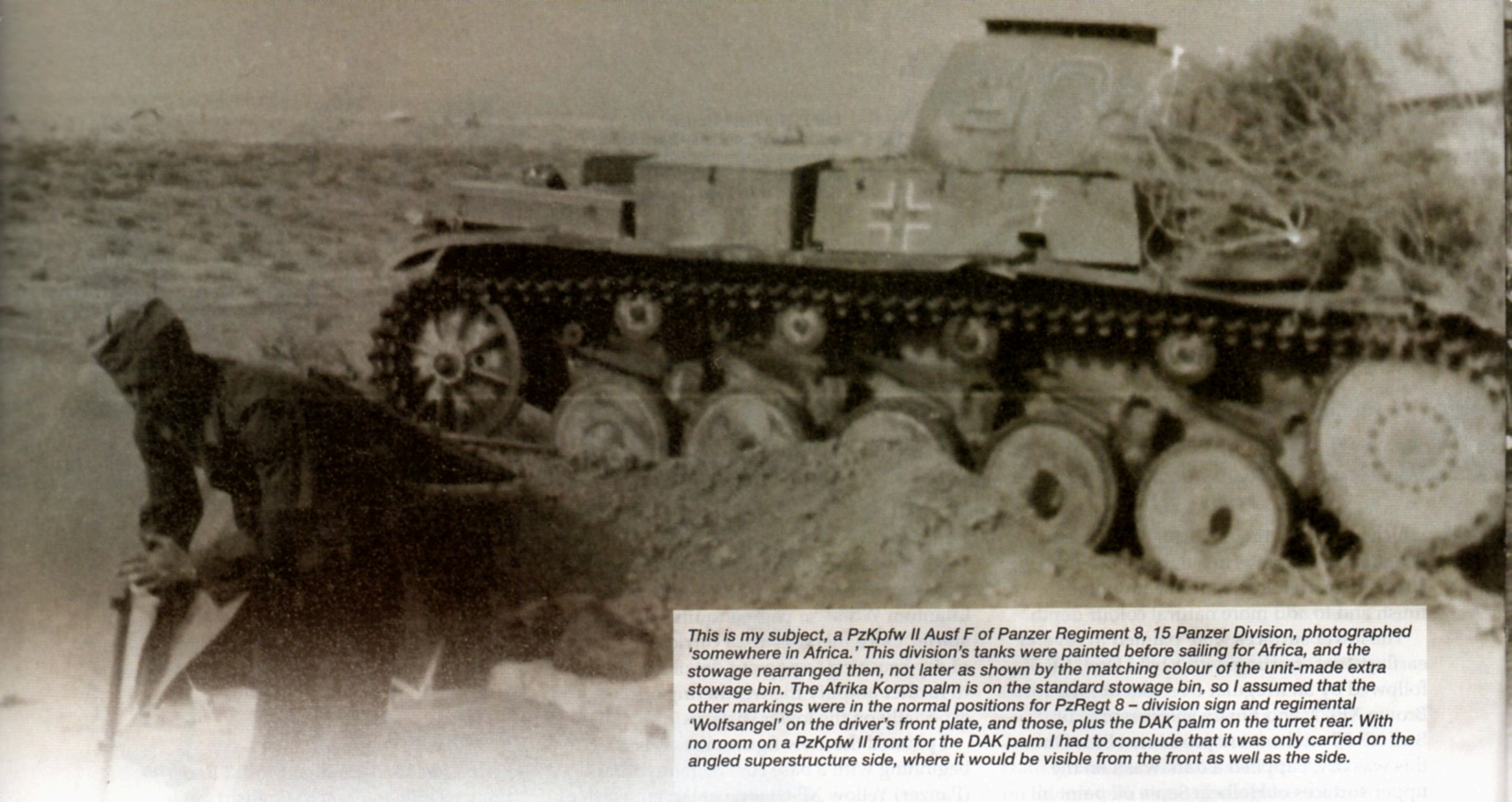
I do enjoy the occasional 1:48 scale model as a welcome change of pace from the more strenuous detail demands 1:35 scale. These projects are usually less time consuming, yet the results are comparable in terms of detail and overall effect.

Availability

Gaso.Line, (8, rue baulant 75012 Paris, France.) (Site in French/English)
www.gaso-line.eu/gaso-line.htm
info@quarter-kit.com
Track 48 (Canada) Tel: (416) 239-7465
info@track48.com www.track48.com
UM 1:72 Plastic Model Kits Ukraine (site in Russian)
www.toysworld.od.ua/models/um72.htm
Hauler, Jan Sobotka Křížkovského 25, 603 00 Brno, Czech Republic.
Tel/fax: +420-5-48221072. soobotka@post.cz
www.hauler.cz
Rest Models (Russia – on line shop)
www.restmodels.com restmodels@gmail.com ■



RIGHT: The finished model on a small vignette base.



This is my subject, a PzKpfw II Ausf F of Panzer Regiment 8, 15 Panzer Division, photographed 'somewhere in Africa.' This division's tanks were painted before sailing for Africa, and the stowage rearranged then, not later as shown by the matching colour of the unit-made extra stowage bin. The Afrika Korps palm is on the standard stowage bin, so I assumed that the other markings were in the normal positions for PzRegt 8 – division sign and regimental 'Wolfsangel' on the driver's front plate, and those, plus the DAK palm on the turret rear. With no room on a PzKpfw II front for the DAK palm I had to conclude that it was only carried on the angled superstructure side, where it would be visible from the front as well as the side.

Detail a DAK Panzer 'Two F'

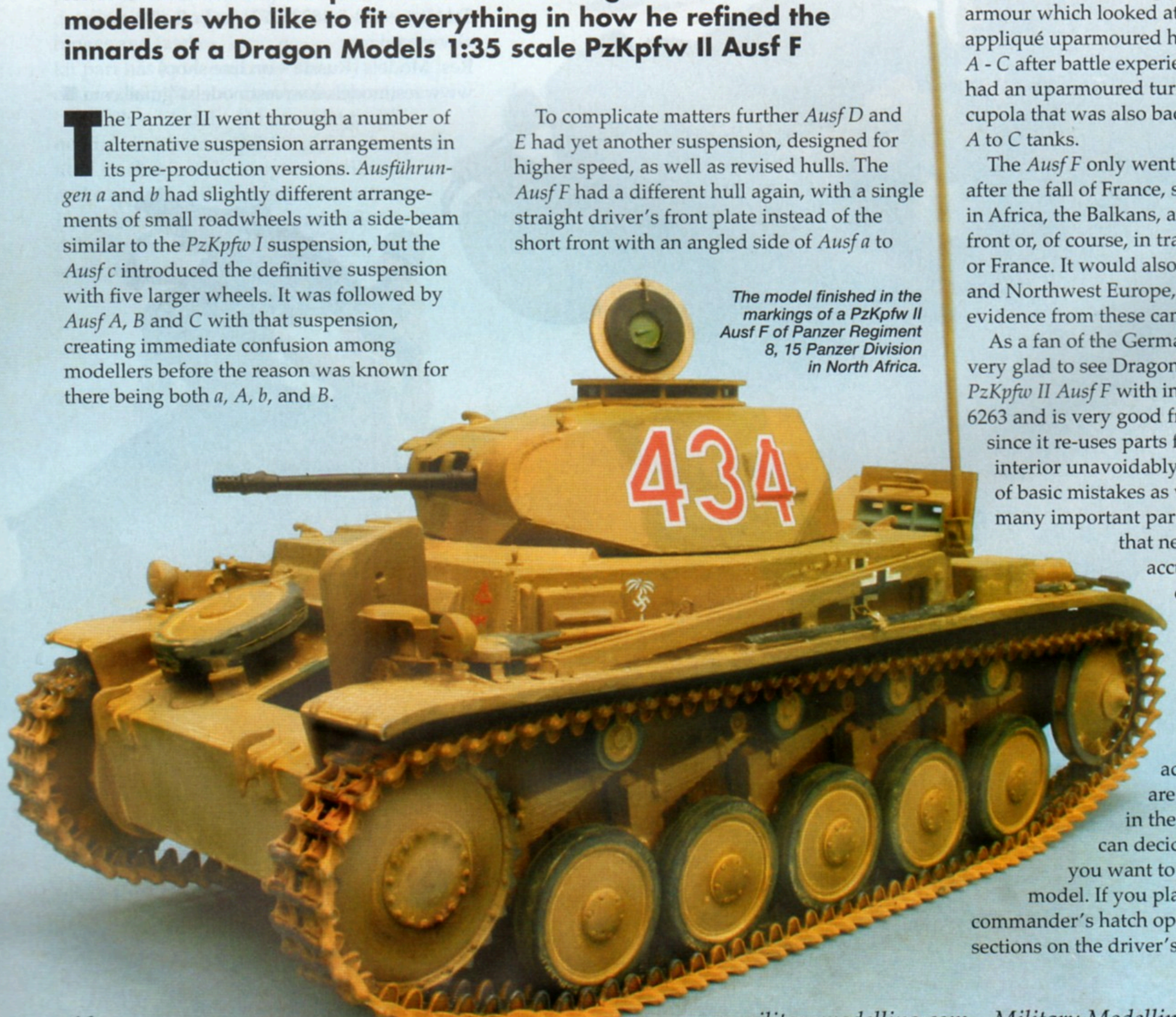
In the first of a two-part feature John Prigent recounts for modellers who like to fit everything in how he refined the innards of a Dragon Models 1:35 scale PzKpfw II Ausf F

The Panzer II went through a number of alternative suspension arrangements in its pre-production versions. *Ausführungen a* and *b* had slightly different arrangements of small roadwheels with a side-beam similar to the *PzKpfw I* suspension, but the *Ausf c* introduced the definitive suspension with five larger wheels. It was followed by *Ausf A, B* and *C* with that suspension, creating immediate confusion among modellers before the reason was known for there being both *a, A, b*, and *B*.

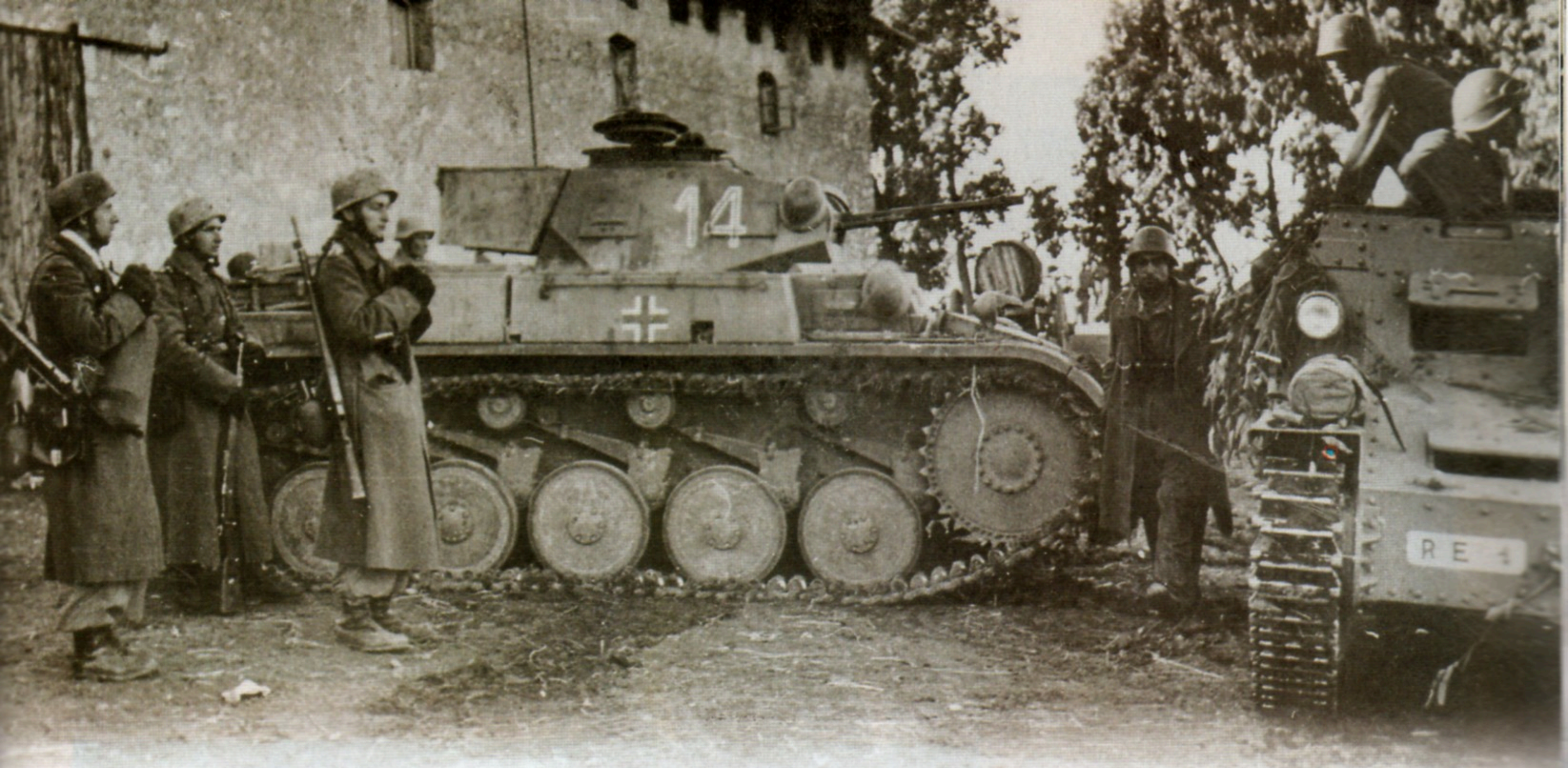
To complicate matters further *Ausf D* and *E* had yet another suspension, designed for higher speed, as well as revised hulls. The *Ausf F* had a different hull again, with a single straight driver's front plate instead of the short front with an angled side of *Ausf a* to C. It also embodied upgraded hull-frontal armour which looked at very much like the appliqué uparmoured hull front fitted to *Ausf A - C* after battle experience in Poland, and had an uparmoured turret front as well as the cupola that was also back-fitted to many *Ausf A* to *C* tanks.

The *Ausf F* only went into production after the fall of France, so can be modelled in Africa, the Balkans, and on the Eastern front or, of course, in training in Germany or France. It would also have served in Italy and Northwest Europe, but photographic evidence from these campaigns is rare.

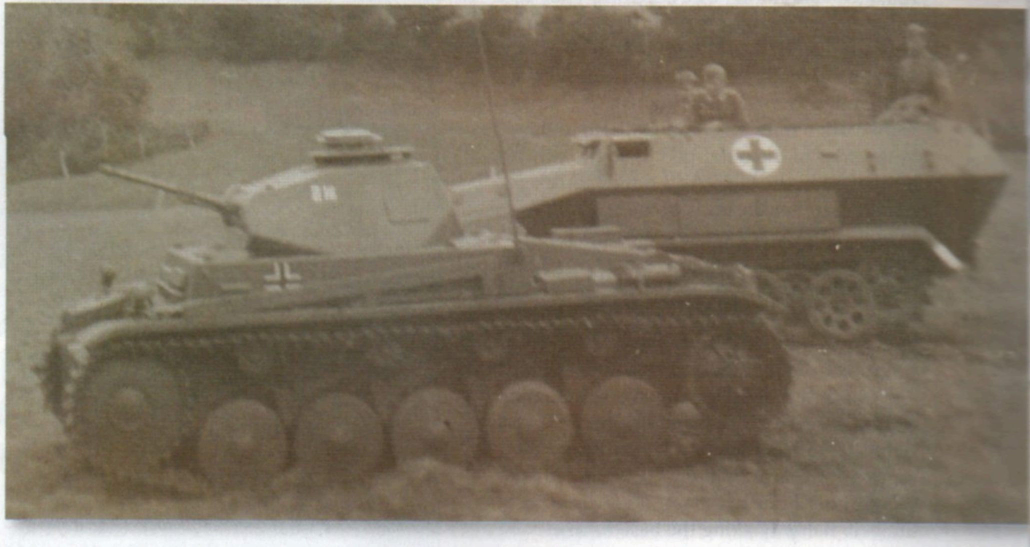
As a fan of the German light tanks I was very glad to see Dragon's announcement of a *PzKpfw II Ausf F* with interior. This is their kit 6263 and is very good from the outside, but since it re-uses parts from their *Marder II* its interior unavoidably contains a number of basic mistakes as well as leaving out many important parts and having others that need refinement for accuracy. I, therefore, decided to give it a major rework since almost everything inside the model can be seen by simply lifting off its turret. All my interior additions and changes are described here, and in the next issue, so you can decide for yourself which you want to make in your own model. If you plan to have only your commander's hatch open you can ignore my sections on the driver's compartment and



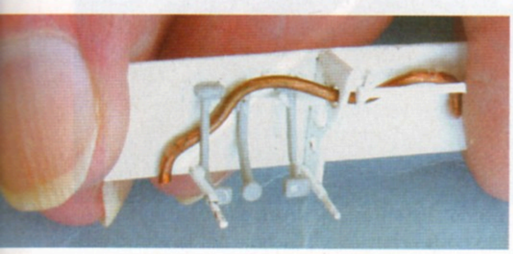
The model finished in the markings of a PzKpfw II Ausf F of Panzer Regiment 8, 15 Panzer Division in North Africa.



ABOVE: This PzKpfw II Ausf F has been identified elsewhere as a tank of 90 Light Division. It was photographed in Tunisia on 18th February 1943, one the few survivors of the long retreat from El Alamein parked near a vehicle from an Italian unit. It carries not only a unit-made extra side stowage bin, but also a turret bin, which does not appear to be quite the official shape so may also be unit-made. The soldiers to the left are fallschirmjäger.



RIGHT: This PzKpfw II Ausf F was photographed in front of SdKfz 251 Ausf B ambulance during exercises on a German training ground, probably in 1940 since divisions can be seen on the original print between two colours indicating the grey and brown camouflage scheme officially abandoned in June 1940. Stowage is standard, with the jack block clearly painted grey and the fire extinguisher apparently dark green. Its tactical number appears to be II16 but no unit sign is visible.



The hull front interior plate detailed with foot controls and piping.

the engine, though the ammunition stowage, radio and turret will still need attention even if you decide that other areas will be invisible. For obvious reasons I began with the interior work, adding only the front and rear plates to the hull at this stage. There are no useful painting instructions for the interior, so I'll include them at various points.

The driver's area

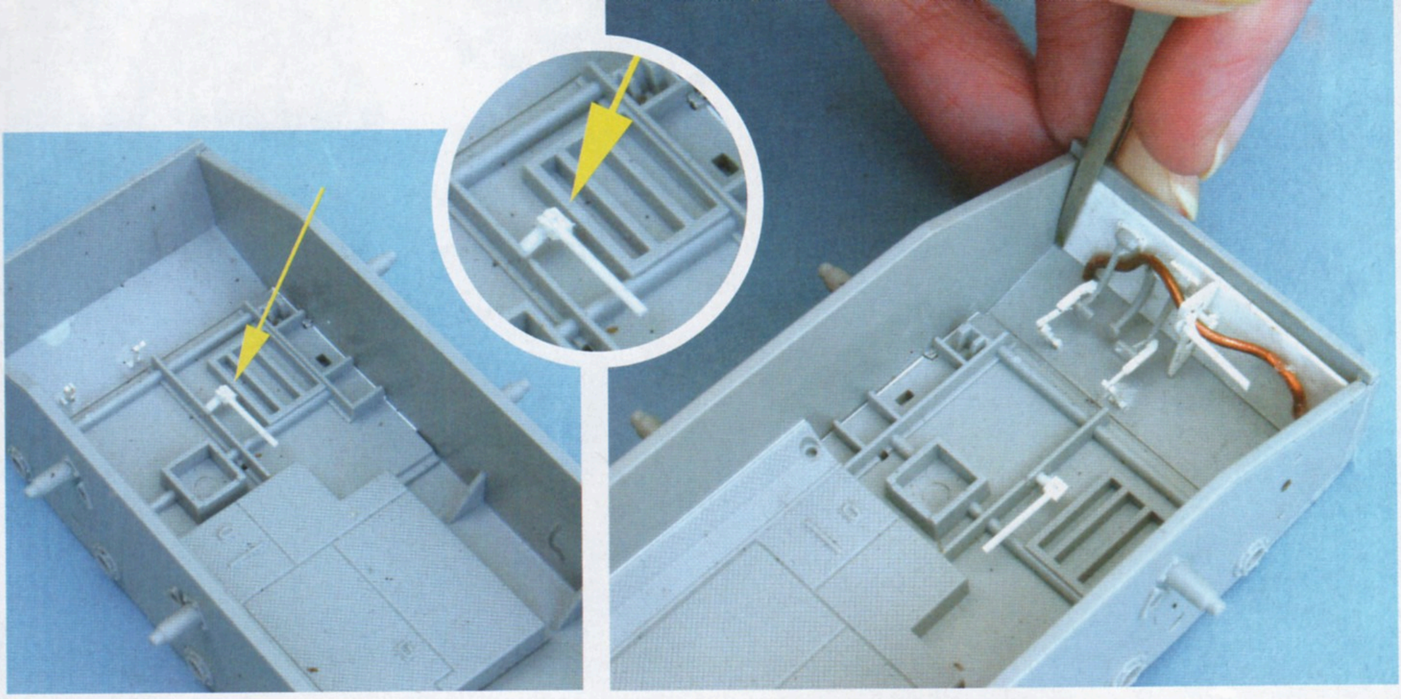
There's a lot of work to do inside, so it's best to leave the suspension till later. I began by assembling lower hull parts Z, A24 and C34, but left off all the exterior fittings. Note that C34 has lugs that will stick up slightly and stop the hull top fitting correctly; trim them when cement is set.

Dry-fit floor A34 in place and mark the ribs that locate the floor where they emerge from it, then remove them down to the mark, because they don't exist in the real tank. Now assemble the transmission parts. The gear lever C38 comes as a solid piece with its guide arc, but a sharp blade and careful slice-at-a-time trimming will cut it free to give the appearance of the real thing. Cut the handgrip from its top, shorten the shaft to 9 mm and re-attach the handgrip. Now dry-fit the floor and transmission so you can judge clearances for the next stage. Be warned, the floor needs to be reshaped later so don't even think of fixing it yet!

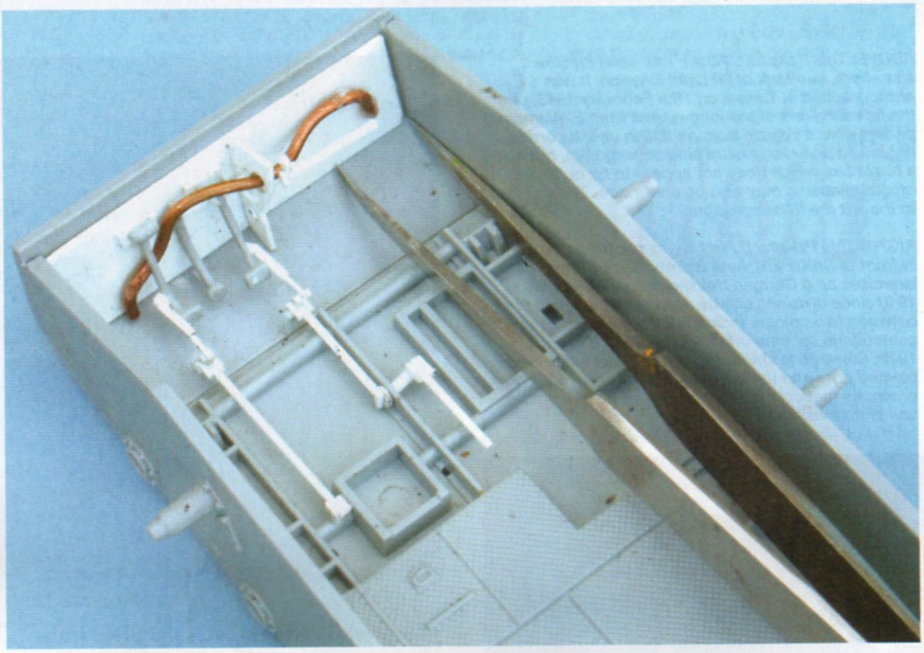
DML's interior front plate J60 is far too thick, and its brace C83 is the wrong shape. Cut ½ mm plastic card to replace J60, 36 ¼ X 10 ½ mm with its bottom edge chamfered to fit against the hull bottom. C83 is replaced by a 'mutton-leg' shape from ½ mm card; it is impossible to give exact measurements because I did it by eye, but start with 14 ½ X 5 mm and make the bottom of the leg 5 mm high by 3 mm wide and its top 4 ½ mm high tapering from the 5 mm to 4 mm, with the centre section tapering between them. Take a section out of the front top corner to clear the small rib under DML's hull top, then offer it to the hull and trim the bottom of the piece to fit the slope of the hull bottom. Finally, punch the three lightening holes, noting that the centre one is largest to let a control rod go through it. The brace can now be cemented to the middle of your replacement front plate in line with the central rib on DML's floor.

All by eye

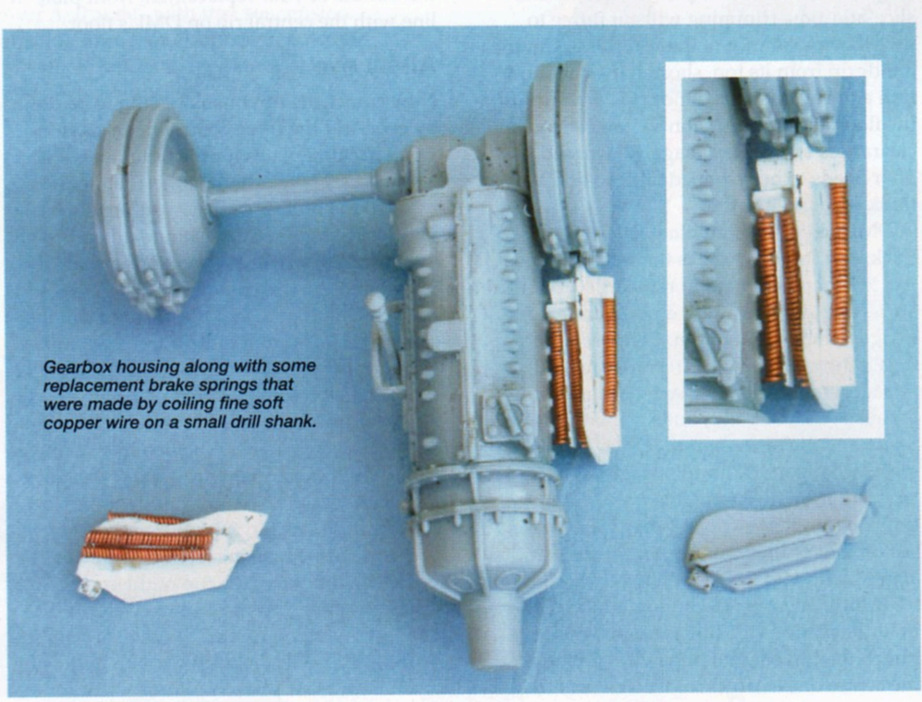
Now comes the fun bit, all having to be done by eye. Add the three control pedals, with small backing plates for the outer ones – it isn't necessary to add the bolts that held those to the hull since they won't really be visible. Triangular fillets should go on the outer pedals, but DML's versions are nearly big enough so you could skip that. Next, add a 9 mm length of ¾ mm plastic rod from the centre pedal through that largest hole and support its far end with a scrap of plastic card; this represents the first part of the accelerator linkage and the rest will be added to the glacis plate later. The final part here is a length of thick copper wire – mine was taken from electrical flex – representing the brake cooling hose, bent to run up from behind the port final drive housing, across behind the port pedal and over the top of the central and starboard ones, through the largest hole in the C83 replacement, and down to behind the starboard final drive housing, with both ends against the front plate.



The clutch actuator added to the hull floor, and sequence for adding the first control rodding detail to the front of the lower hull interior.



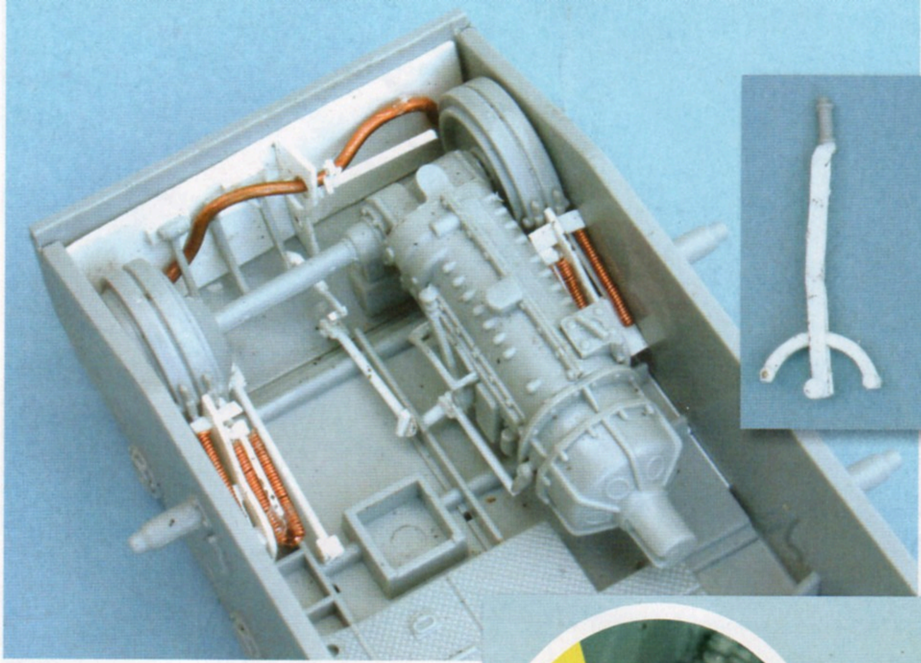
Next come the brake and accelerator linkages, with more 'by eye' work. They're complex, with multiple parts that need to be fixed so they'll fit together on final assembly, but can't actually be stuck until various parts are painted. Start by making two 'J'-shapes from card, 5 mm long, and fix them to the outer sides of the outer pedals so they will be horizontal in the tank. Add thinner strips 3 mm long under the ends of these. Next, make two uprights to fit between the floor and the ends of these and add card strips to represent their bottom pivot points and the 'U'-shaped top pivots. Fix them to the hull bottom so they'll meet the links from the pedals. A long rod runs from the mid-point of both of them. The port rod runs to the transverse actuation rod by the driver's seat and needs card pivot points at both ends with a scrap of card to represent the arm that links it to the rod, and the starboard one to a point on the central floor rib halfway along the base for the gearbox. This one only needs a pivot point at its front, with just a small strip and disc at its rear. On the other side of the rib a short section of thick rod serves as the actuator for another short vertical arm, this one carrying another pivot pint and rod that runs to meet the bottom of DML's part C30 to complete the clutch linkage. All this sounds a lot harder to do than it actually is, but don't be tempted to cement the parts together to make it easier or you'll find painting rather difficult.

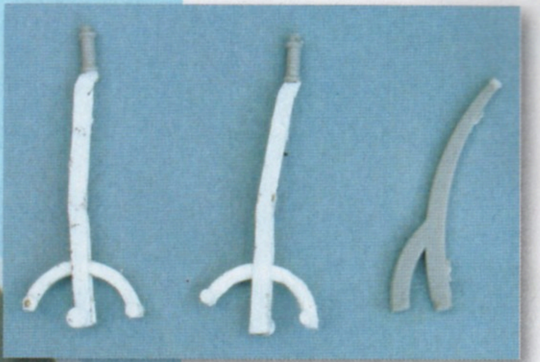


Gearbox housing along with some replacement brake springs that were made by coiling fine soft copper wire on a small drill shank.

Brake actuators

Now for another improvement. DML has moulded the brake actuators as undetailed lumps on a backing plate that's much too thick. Use either C6 or C7 as a template, removing the detail from one side so you can lay it flat, and cut two replacements to the same shape from 0.5 mm card. If you copy the shape exactly it will fit firmly in place, just like DML's part. Then take the thinnest copper wire you can find, from electrical flex (I have a selection of flexes with wire of differing sizes, they're available in 1 metre lengths from good lighting stores). Wind it round a 0.5 mm or thinner drill bit till you have an 8 mm length. Make eight of these coil springs.

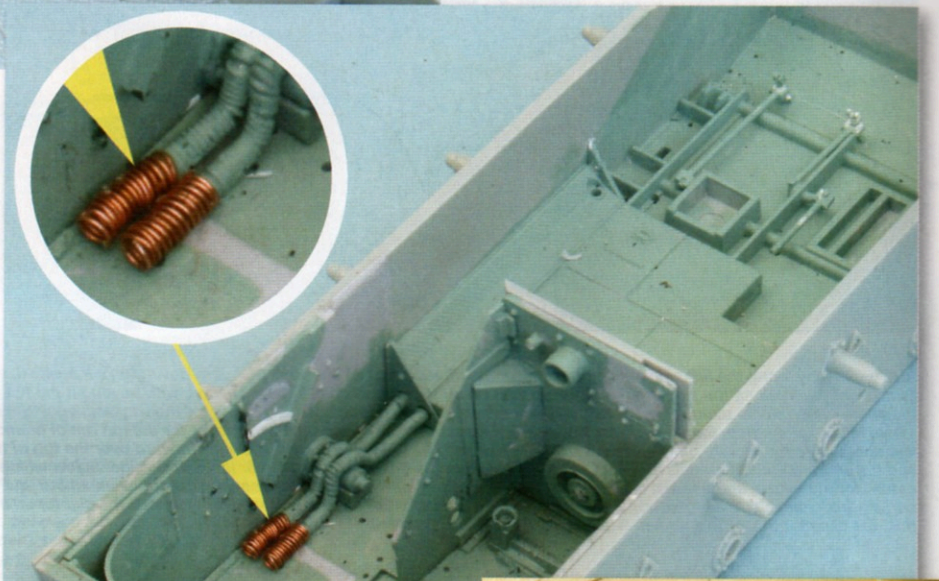




ABOVE: Replacement steering levers.

LEFT: Gearbox housing in situ on the right side of the forward compartment alongside the driver's position.

BELOW & INSET: Extended brake-cooling pipes added.



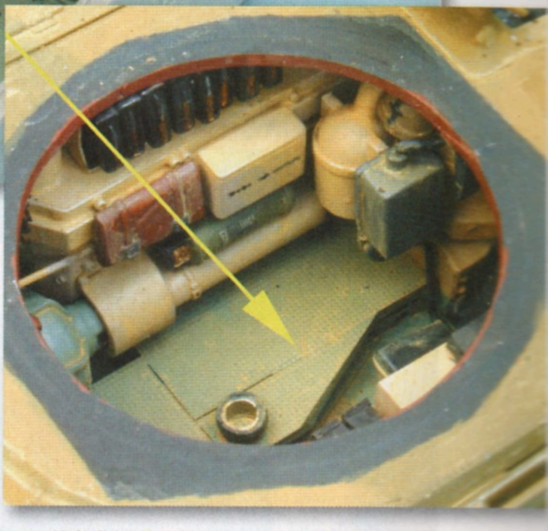
One goes each side of an 8 mm strip of card, with a third under one of them. Fix this to your new backing plate at the same angle as DML's original, with the third spring on the inner face (the fourth one of the real tank is against the hull side so invisible on the model). Add a small block of 1 mm card to the top end with a sliver of rod angled up to meet the brake housing, and a square of 0.5 mm card to represent the protector that goes over it. This completes the inboard side of the actuator assembly.

For the outboard side you need a short strip of card with a rod from its top end, placed at the same angle on the backing plate under the spring, which again needs a rod and square protector. That's one actuator assembly complete, so all you need now is to make a mirror image of it. Most of this turned out to be hidden in the finished model when the full internal stowage is added, so you could simply make the actuator assembly next to the driver and use DML's for the other one behind the gearbox, but I did all the work because 'I know it's there'.

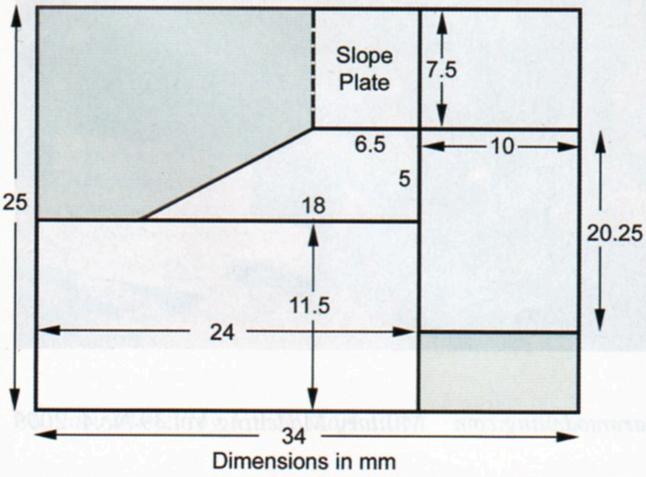
Wrong floor!

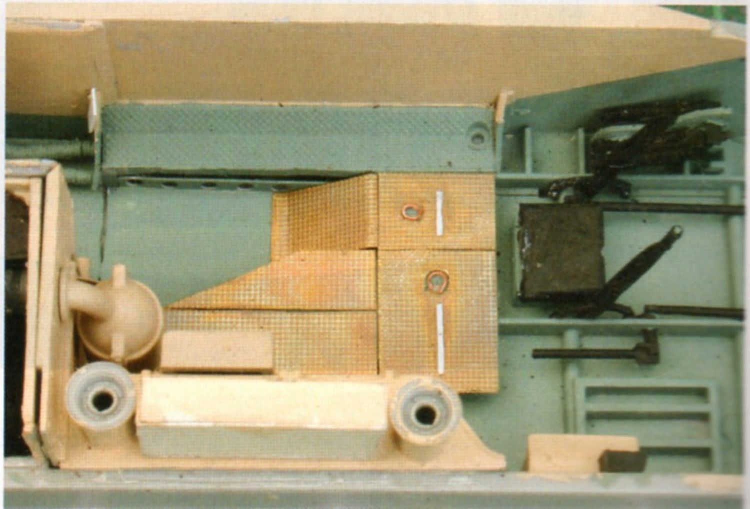
A triangular brace fits to the hull wall behind the driver at the start of the raised section of DML's floor. Cut it from plastic card 8 mm high and 6 mm wide, then remove 1 ½ mm of the lower angle so it fits neatly inside the rib on the floor. Add a strip of thin card up its back and attach it to the floor but not to the hull side yet. A corresponding triangle goes on the floor opposite it, but this time without its tip removed. That one will be invisible behind the grearbox, so could be left out.

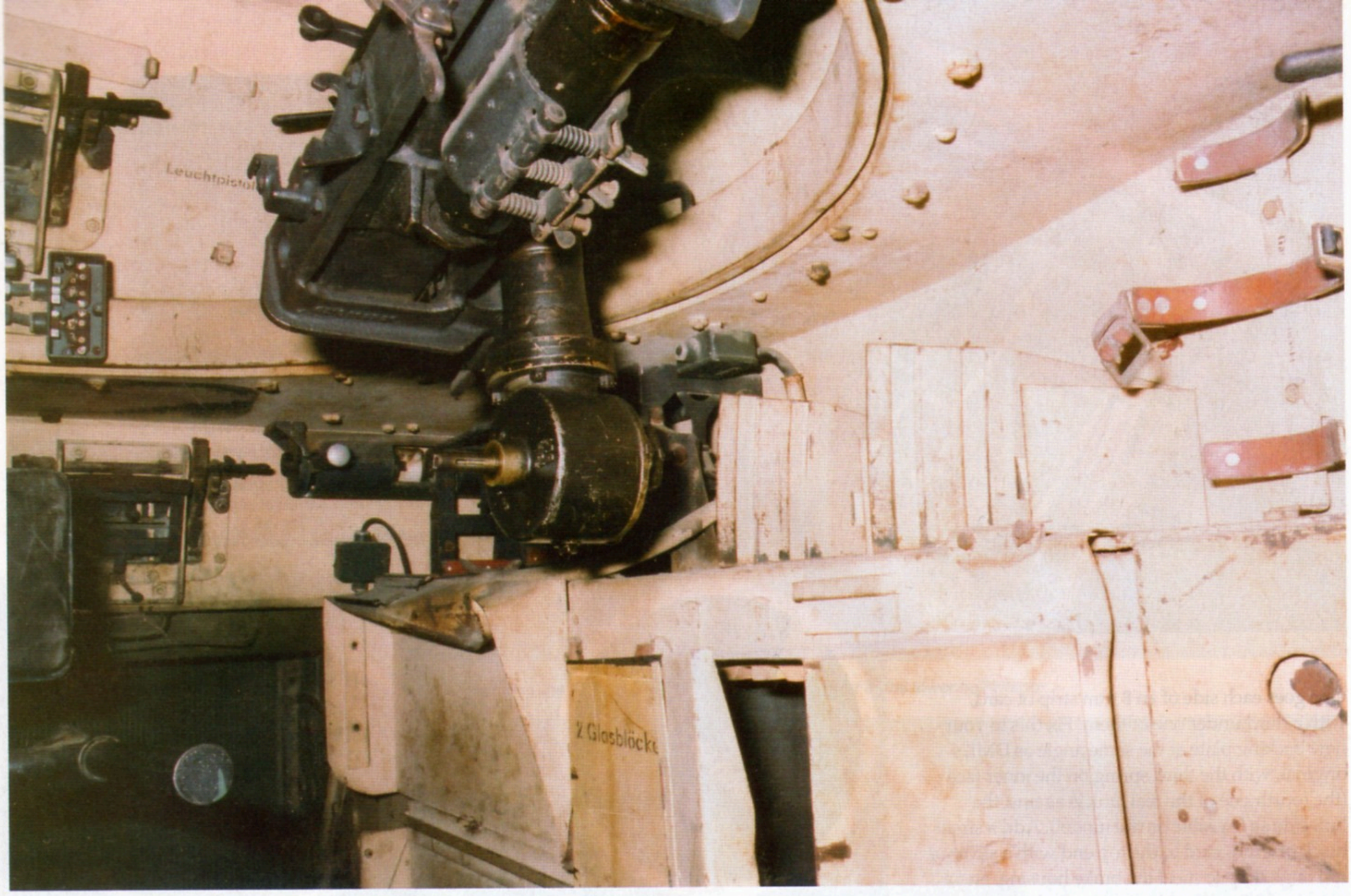
The floor itself is completely wrong, DML having simply used their *Marder* floor. The correct shape is shown by my template, but the individual plate sizes are also wrong so I had to cut new plates from Accurate Armour's dot-pattern tread plate etched brass sheet D07, not forgetting the sloped floor section that goes in the gap as seen in my photograph. The front two plates each need a strip of unknown use and a 'D'-shaped hole for the lifting eye, and the eyes themselves are simply wire bent to



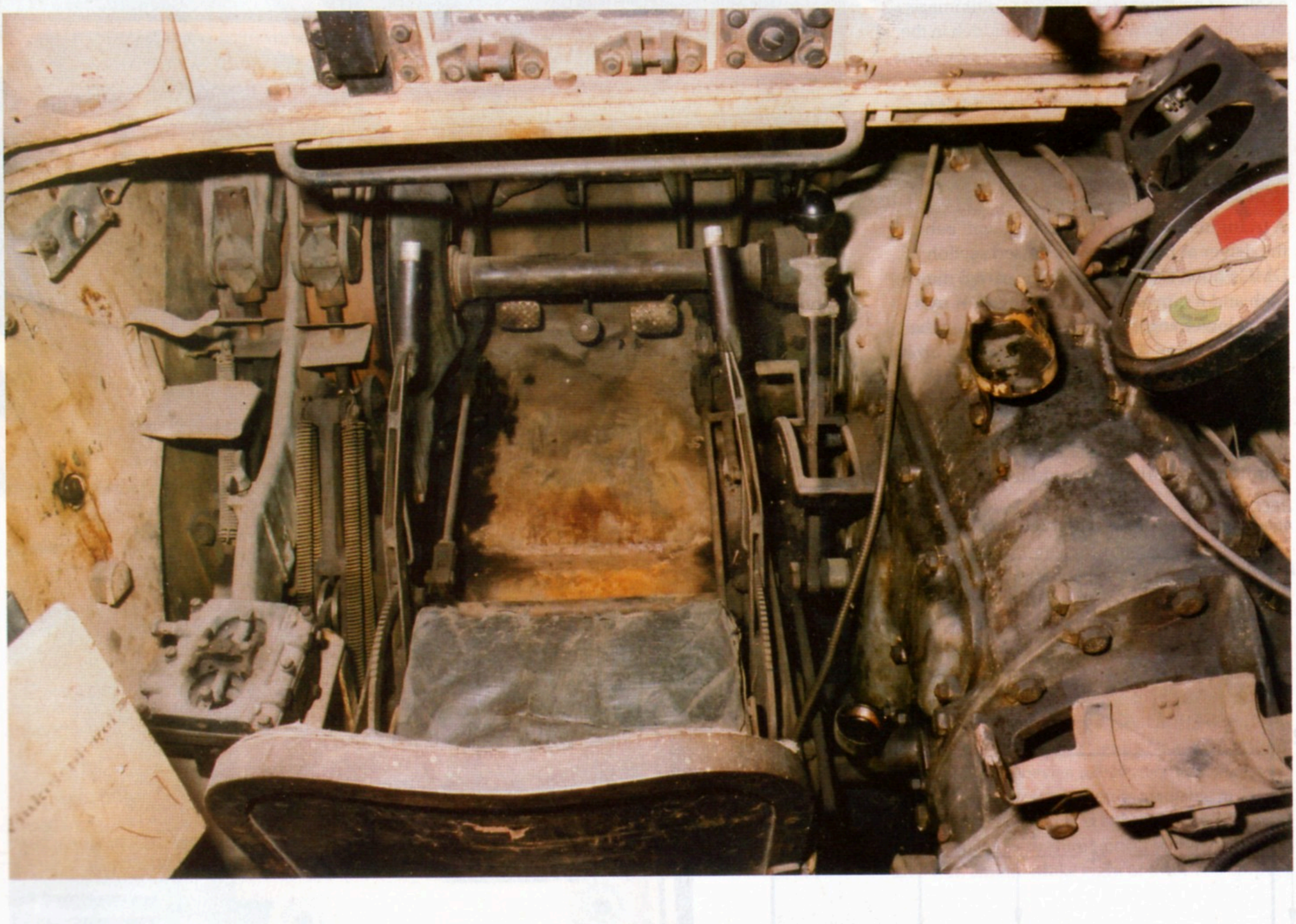
BELOW: A dimensioned template to make a new floor – I cut the elements from photo etched skid plate of a suitable pattern. ABOVE & BELOW: The new floor fitted – note how the top left side rear section slopes downwards.

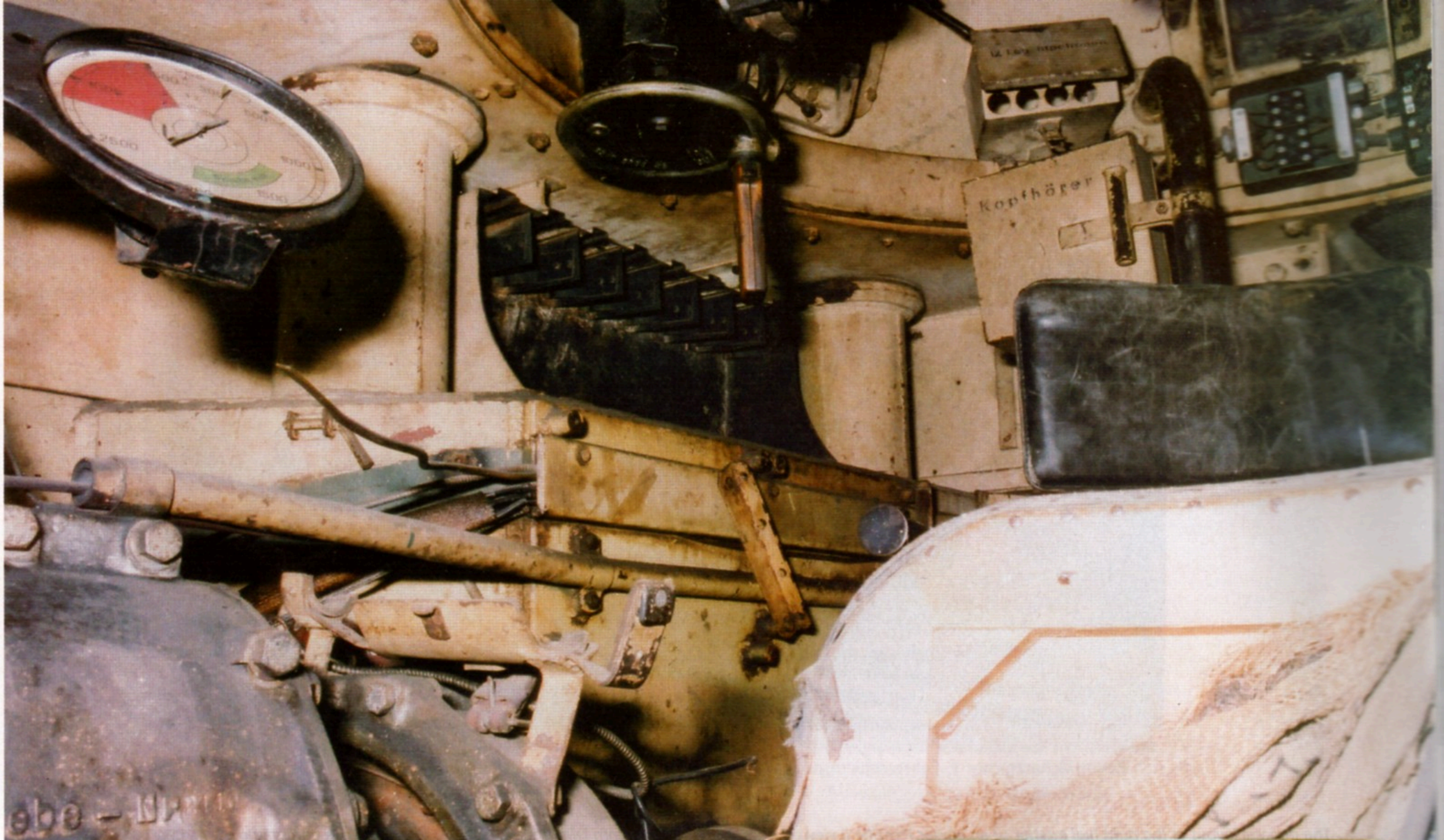






ABOVE: A view along the left side looking back from the driver's seat of The Tank Museum Bovington's PzKpfw II, shows at the top the underside of the 2 cm gun mount. From right to left along the side are the straps for the driver's gasmask case in the sponson, with beyond it the two racks for a pair of 2cm magazine each, with beyond those the partly visible radio rack. Below these, on the actual hull side the nearest box is for the winkelspiegel (the driver's binocular periscope). Beyond it is the place for a single MG34 ammo bag, then the bin for two spare glass vision blocks and finally the cover for the top run of ammo bag stowage. The empty base of the commander's seat just comes into the picture on the left. (The Tank Museum/TM 1119-C4) BELOW: The view forward over the top of the driver's seat, with the two steering levers at its sides and beyond are the foot pedals and final drive. On the right the gearbox has the gear lever on its side, below which is part of the clutch linkage. On top of the gearbox is the mount for the oilcan, and nearest is the mount for the grease gun. The instrument panel has been dismounted and placed on top of the gearbox, partly hiding the accelerator pedal's link cable along the gearbox top. On the left are the details of the track brake, with above it the clip for an inspection lamp and, between that and the winkelspeigel box, the clips for the large spanner. (The Tank Museum/TM 1119/A6)





A view of the right side of the hull interior looking aft from the driver's area. On the left can be seen more details of the grease gun mount on top of the gearbox and the accelerator cable link running from its top along the front of the fuel tank, with above that various electrical cable that also lead to the engine bay. The eight-magazine bin for 2cm magazines is hanging from the roof above the fuel tank, between the fuel filler pipes, with the turret traverse handle in front of it. At the back is the angle of the commander's seat support beside the turret rear vision port, with the headphone bin attached and a box for flare pistol cartridges. (The Tank Museum/TM 1119/B6)

shape. There is no evidence whether or not the large plate beside the fuel tank had a lifting eye. All this needs to be done before fixing the floor – I didn't have reference for it in time so had to do the job with the floor in place, not an easy task. Strips with holes punched in them form the longitudinal members on the hull floor, but don't actually reach up to the new floor so need to be fitted before it rather than attached under it.

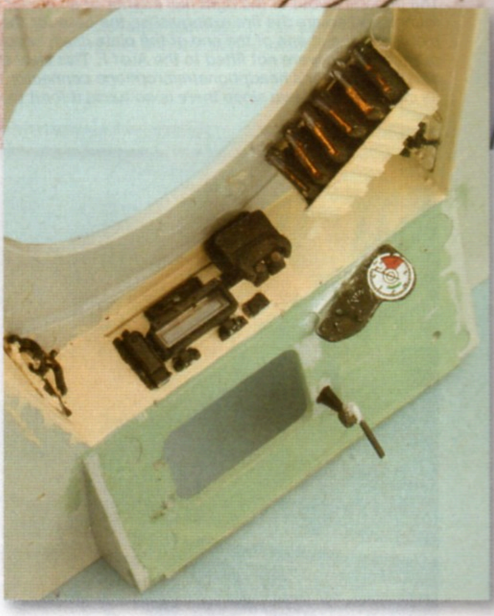
Steering levers

The last parts to remake are the steering levers, which DML has moulded as solid, curved parts with only part of their bottom arcs. The real ones are hollow with reinforcing blocks inside them, and basically straight with a bend in the middle and another small one at the top. Make four pieces from 0.25 mm card 15 mm high and add 0.5 mm card blocks to two at their bottoms, just below their bends and 2 mm below their tops. Now attach the other sides, with the tops squashed together and the handles cut from DML's parts attached to their tops. A small card disc on the bottom of each represents the outer side of its pivot. Now you need the arcs, again cut from 0.5 mm card. I made mine by using a leather punch to make a 0.5 mm hole in some card and then carefully trimming round it with my knife to leave a 'washer' that I simply cut in half to get two arcs. A 0.5 mm card disc goes at each end on both sides after the arcs have been slipped through the hollow levers. When fitted they will cover the locating holes for DML's levers.

The gearbox needs a couple of additions on its top, the oilcan and grease gun that were standard fittings. I made them from sections of plastic sprue, rod and plastic strip.

Colours so far

So far, so good, but don't fix anything in place yet if you plan to add the engine, and anyway fit the gearbox assembly and drive shaft after the fuel tank and firewall. Interior colours are blue-grey floor and walls up to floor level, cream above that on the left side, but slanting up to just above steering brake drum. On the left side cream down to level of brake drum back as far as the fuel tank. Mechanical bits black, seat black leather on black-painted frame. Gearbox and final drive grey-blue, brake bands steel. I found Humbrol Pale Stone 121 to be a close match for the interior cream, and the now discontinued Humbrol Matt Russian Blue 115 is a good match for the blue-grey. Unfortunately H115 has been out of production for years, but Humbrol suggests a mix of their White 34 (37 parts), Blue 25 (10 parts), Forest Green 150 (6 parts) and Grass Green 80 (3 parts) to match it. White Ensign Models also make a good match for the interior cream and is considering producing a match for the blue-grey colour.

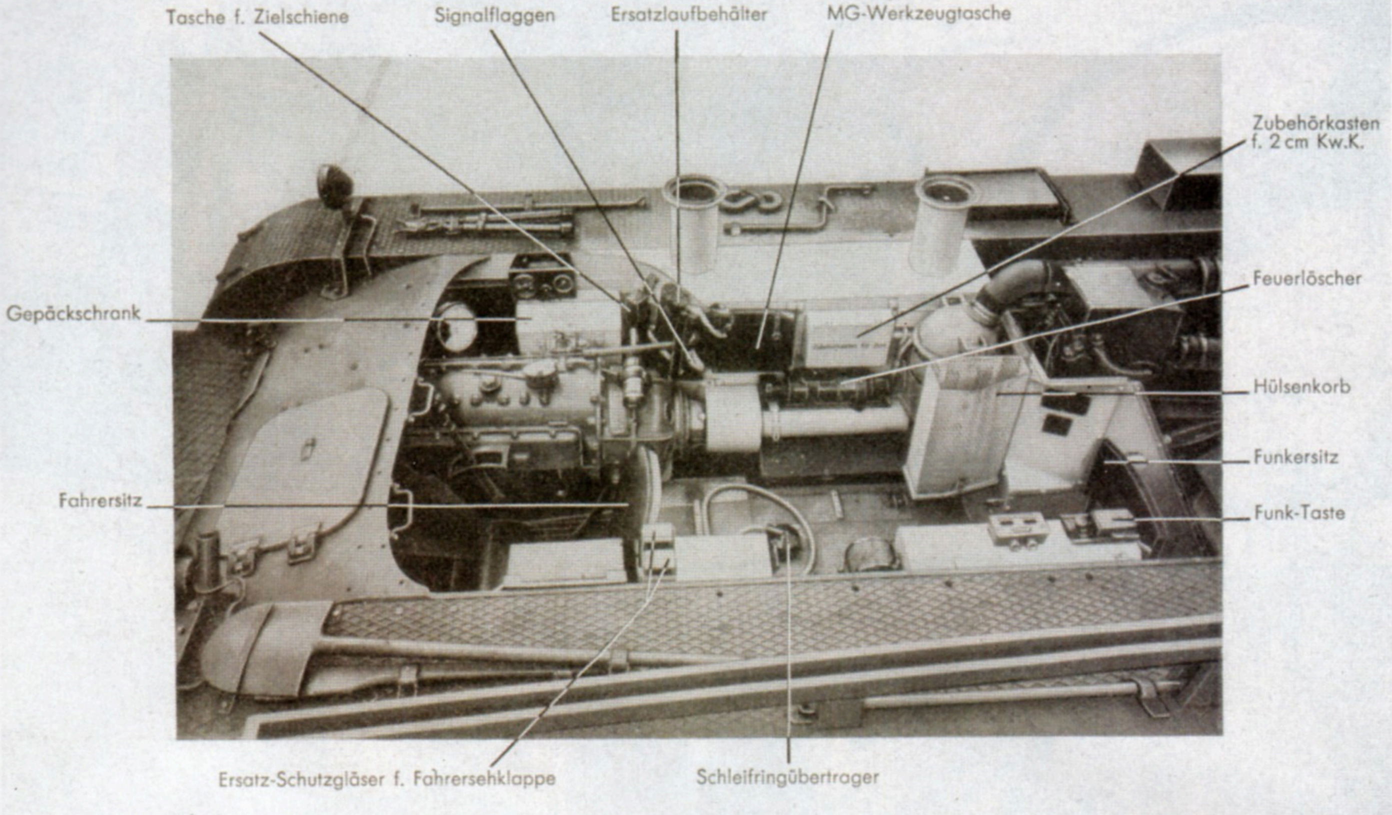


Stowage under the hull superstructure front.

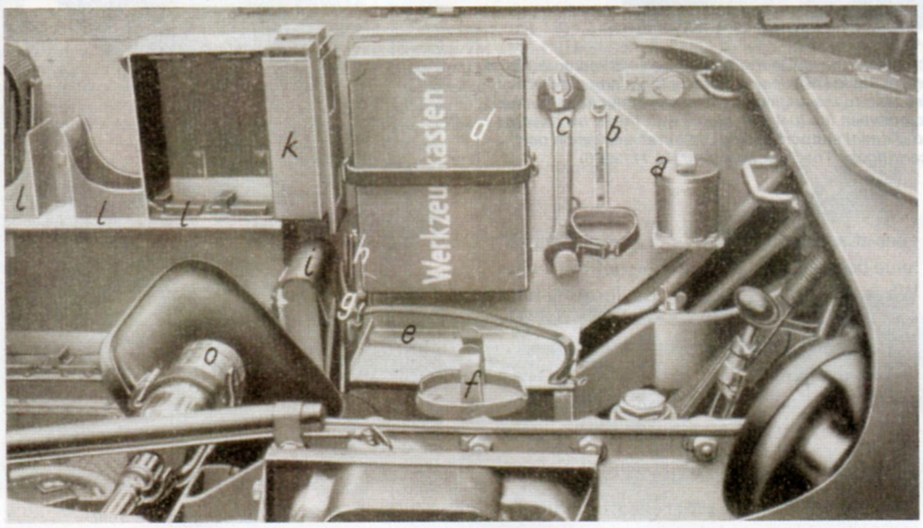
More driver's area additions

But some additions are still needed in the driver's area. First is the tool box J68 which just needs a card strip across its front for the securing strap; the box can be black or field grey-green with white lettering running up it, the strap appears to be black leather. DML's box seems to be a bit larger than it should be, making it hard to shoehorn in the next items, so you may want to cut it down to 10 mm high and 6 mm wide; cut the bottom and left side to leave as much moulded detail as possible.

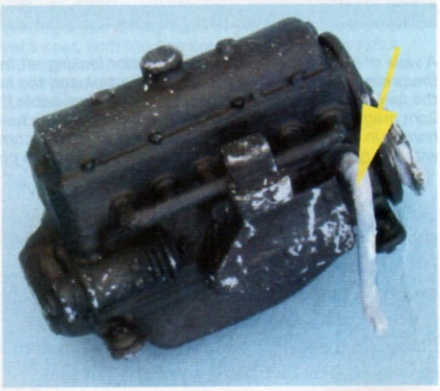
On the hull wall in front of it there should be a medium double-ended spanner – mine is from Italeri's Field Workshop set with plastic card clips – a water bottle and an inspection lamp. My water bottle, like the gasmask cases mentioned later, is from a DML Gen2 figure set. The inspection lamp is a 3 mm section of round sprue mounted on a square



The general layout of the right hull interior of an earlier PzKpfw II viewed from the left. Apart from DML's parts, the oilcan and grease gun on top of the gearbox are standard fittings and so are the fire extinguisher, the case for the open sight and the spare machine gun barrel case. Note how the instrument panel emerges from under the glacis plate, and the shape of the end of the plate itself, which is the same in the Ausf F, though for the Ausf F it only has one grab handle. The toolbox on the floor and the perforated bin were not fitted to the Ausf F. This view also shows the position of the radio operator's seat back, facing forward, and where the Morse key (marked 'funk-taste') and the operator's headphone/microphone connector box forward of it fitted on top of the MG ammunition stowage. The turret slip ring connector is visible on the floor, with its cable coiled down since there is no turret it for it to connect to.



ABOVE: Left side hull interior where many details of this early driver's area remained unchanged in the Ausf F. The lamp (a), water bottle holder (b), large spanner (c) and toolbox (d) were the same, and so did the oilcan holder (f) and the grease gun (o). All the other stowage should be ignored.



The angle the lower radiator hose connects to the engine block.

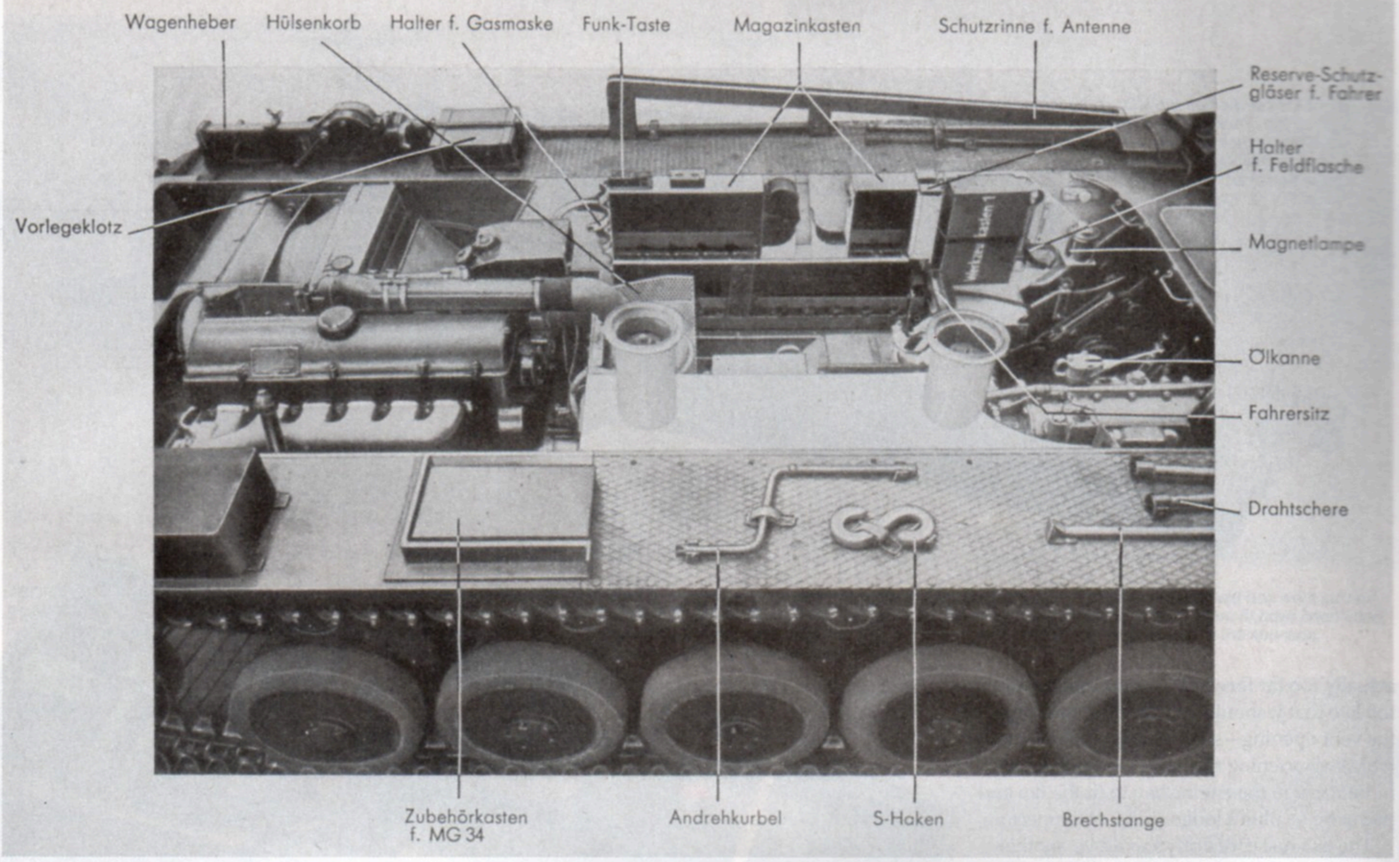
card bottom and given a plastic strip clip at its top. No lens is visible in any photograph of the stowed lamp. Its square base support and clip are cream, and the lamp seems to be green – I used *Olivgrün* and painted the spanner as polished grey metal with cream clips. The water bottle's fabric cover can be almost any drab colour (it seems possible that these were made from 'shoddy' blanket-type material) from field grey-green to brown drab, so I painted mine in several shades. In all cases their fitted straps seem to be black leather, and the aluminium cup on their tops painted black and usually somewhat chipped. They were held in the *PzKpfw II* by a clip that fitted the ring at their top, so is invisible in the model, and a light drab strap around their bottom like a cradle below their bulge.

The engine and its bay

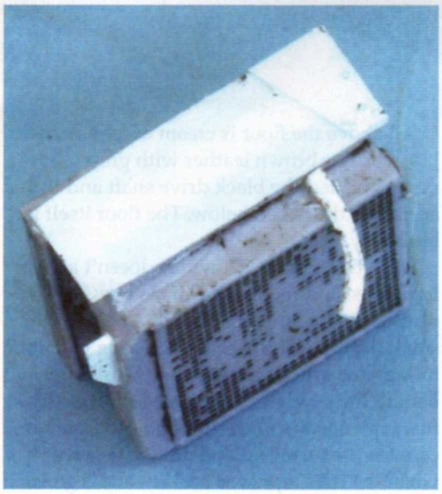
After fixing up the front interior I moved to the back and added Tank Workshop's engine bay, which is excellent, but designed to fit DML's *Marder II* so a little work is needed for it to fit DML's slightly different *PzKpfw II* hull top. If you don't plan to have your engine hatches open you need not do more than alter the side air vent as described below and add a plastic card rear wall and baffles – which are visible through the air outlet grille.

Follow TWS's instructions for fitting the floor and walls, but remove the rib on the floor for the radiator, which will be mounted higher. TW parts 4 and 5, the sidewalls, need a little trimming to fit under DML's new hull top, so dry-fit them and trim to fit with the DML hull top. DML provides the side air vent, but I used the TW vent parts and cut a plastic card insert to fill both ends of DML's vent opening and provide the bottom of it inside the trackguard. This was a mistake, so don't copy me. Instead, make your insert to fill only the front and bottom, and cement the DML vent to the hull top so that its front will line up with the TWS hull-wall insert. Make sure both wall inserts are fixed flush to the hull or you'll have problems later.

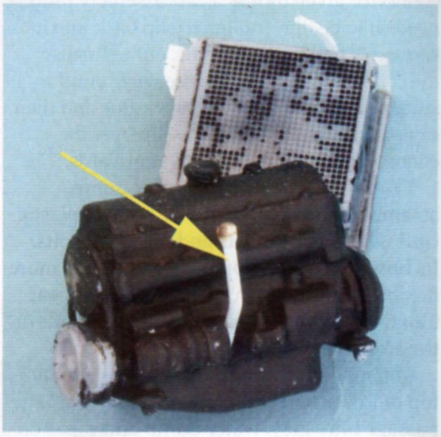
Now make two more 'coiled springs', this time wound around a thicker drill bit so they'll match the brake cooling hoses, and fix them to the ends of the hoses to make them about 5 mm longer; they should disappear under the radiator when it's fixed. Cut and reshape the bottom of the radiator so it fits over them with the top of the fan housing in line with the hull top and add a 2.5 mm plastic card strip to its side. This is only a reinforcement for the next part, so need not be neat and should be just long enough to space the radiator and fan apart enough for the fan drive belt to run straight.



The hull interior stowage viewed from the right side. This is a good view of the left side interior arrangements for MG34 ammunition stowage, although in this early Ausf it is for the double-drum magazines, the basic arrangement remained unchanged. You can also see the oil filler sticking up beside the engine, and the sloped section of the floor plates is just visible beyond the top of the fuel tank.



Small additions to the radiator.



ABOVE LEFT: The water pump. ABOVE RIGHT: The oil filler pipe attached to the side of the engine.

Next is a 6.5 mm X 17.5 mm piece of thinner plastic card that fits over the sides of both parts, forming the only visible side of the fan shroud; it needs an almost triangular top section as shown in my photo. Now you need two arcs of plastic card about 1 mm wide; I made mine by tracing round a 2p coin for the inside and trimming the outside back to form an even shape. One is 8 mm long and goes on the side of the radiator 3.5 mm from its top, the other replaces the arc cast on TWS's part 4 which has far too small a radius. Cut that away and replace it with your second arc 7 mm long and fixed 5 mm from the top edge of the hull.

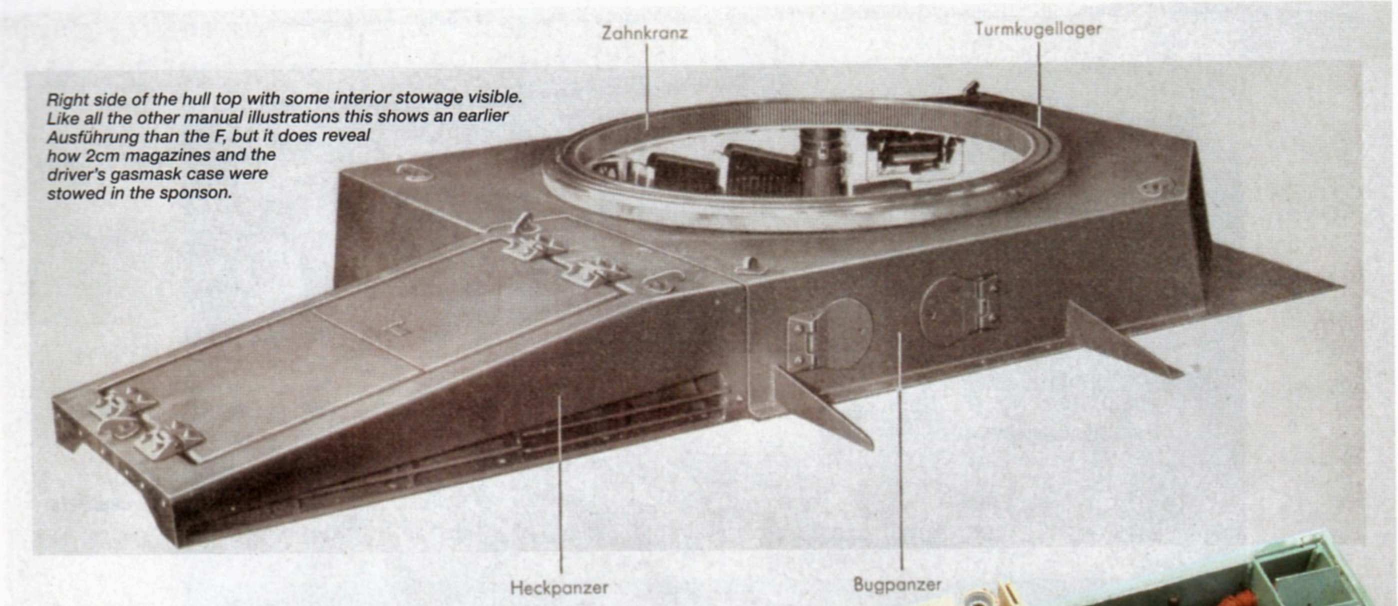
The right hand vent on the front wall, TW part 5, is not present on the *PzKpfw II* so carefully slice it away with the ring of bolts around it. You'll need a dab of filler to smooth over its louvres. You may also find it helpful to remove the motor's locating pin on this wall to ease getting it into place; its floor mounts are quite enough to locate it properly. Fill the vent and air filter locations on the DML front wall while you're working in this area.

Hoses and conduits

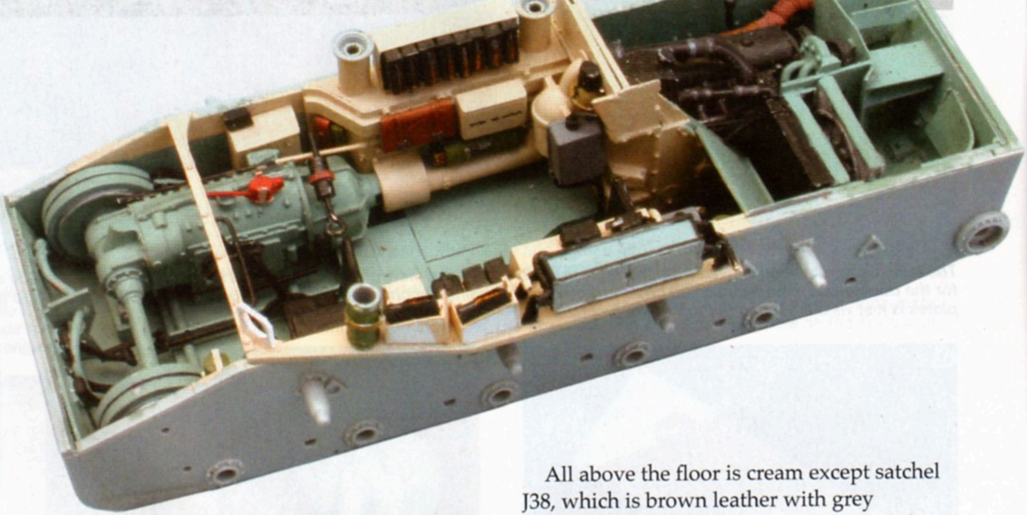
Before you fit the engine, add the conduits from the front wall along the side. One goes all the way to the back wall, the two lower ones only halfway; those should have connections to the dynamo, but they'd be almost impossible to fit with the exhaust manifold in place so I didn't make them. Use plastic rod to make the oil filler pipe that comes up beside that manifold, heating the end to make the round filler cap at its top.

The lower radiator hose is almost hidden after assembly. Fix it to the engine pointing down as in my photo so that its end vanishes under the radiator. The upper hose is the wrong shape and needs replacement, but first the coolant reservoir needs attention because it is too thin. Cut the hose-end on its bottom away as one piece, for reattachment later, and add three laminations of 0.5 mm plastic sheet to the side that will be nearest to the radiator; trim the side to fit around the bracket on TWS' front and side walls, then when the fit is good fix that bottom hose end back close to that side. Make a new hose from plastic rod to run from there, angled slightly down, to a right-angle bend where it goes onto the top of the radiator. It had flexible connectors in two places, and I made them from strips of Tamiya masking tape painter rubber black with thinner strips painted metallic grey as their circlip fasteners. The carburettor intake tube needs one of the flexible connections as well, and so does its location on the front wall.

TWS's rear wall needs a little extra – the second top baffle visible through the louvers of the hot air vent. The baffle that's cast onto the part should also be a little higher. Now dry-fit the wall and measure the gap between it and the end of the radiator fan housing. Cut plastic sheet to fill this gap, with a slot in it to let the fan drive belt fit through. The wall is



Right side of the hull top with some interior stowage visible. Like all the other manual illustrations this shows an earlier Ausführung than the F, but it does reveal how 2cm magazines and the driver's gasmask case were stowed in the sponson.



actually too far forward – I didn't realise until too late that it should meet the forward edge of the vent opening – so you may prefer to move it back, shortening the baffles to fit, and have more room in the engine bay to fit the fan and pump belts, plus a longer exhaust connector.

The exhaust connector should be another flexible part, apparently corrugated metal hose. I wound wire round the part cast onto the rear wall, but you can't do that with the actual connector given by TW as the assembly process needs it to be thin enough to slip back into its connector and be pulled back out to finalise the connection. I wound more wire round a suitable tube, fixed it with super glue and then sawed a slot in the bottom to slip over the connector, cutting it to length afterwards.

TW doesn't provide the water pump assembly. Mine is a 7mm disc of thick plastic card with sheet mounts and punched bolts. Its hoses are thick copper wire with two more flexible connectors on each. They disappear into the radiator housing, so file their ends at the appropriate angle.

Colours: the entire bay is blue-grey up to top of lower hull walls, cream above that. Air passage blue-grey, water pump and pipes on it ditto, fan shroud and housing ditto, blades grey metal, entire engine black, all other pipes black, air intake manifold and lower section of carburettor grey metal, exhaust manifold and pipe rusty.

The fighting compartment

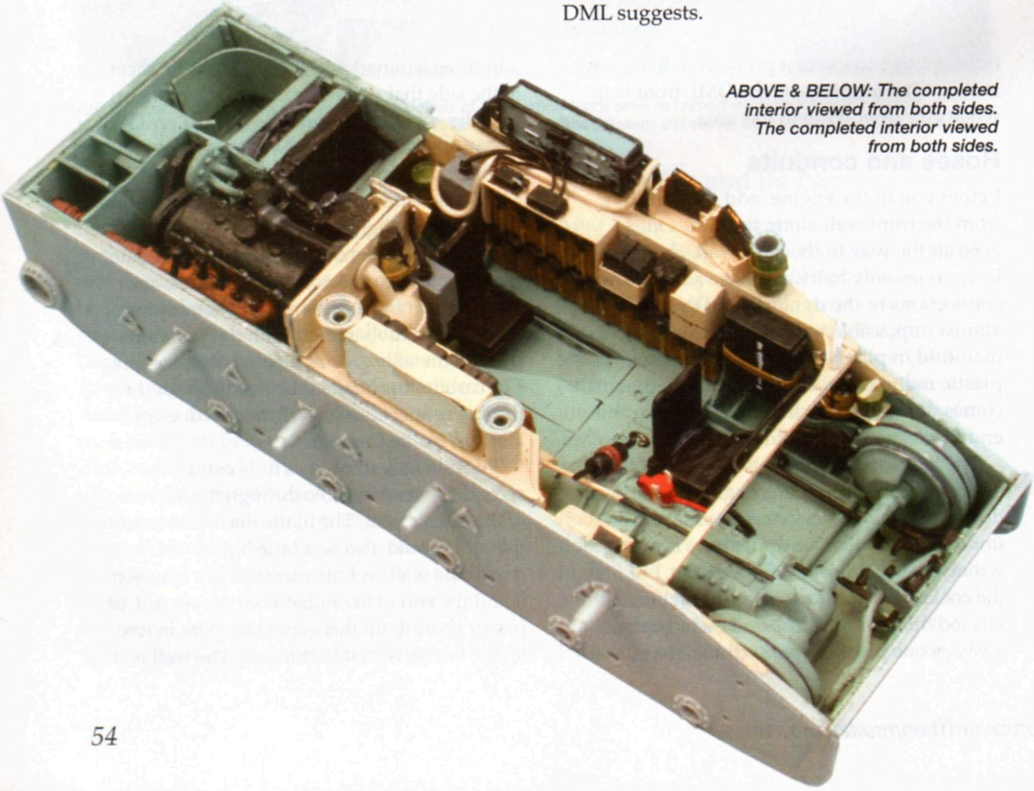
Fix the floor of the left side sponson, part J70, to the hull side now and fill its joint – completing the interior fittings will be very difficult if you fix it to the superstructure as DML suggests.

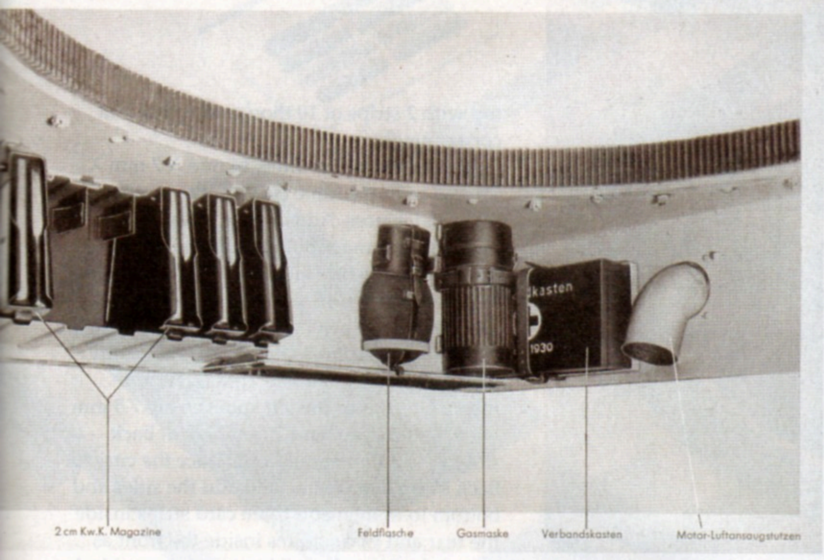
All above the floor is cream except satchel J38, which is brown leather with grey metal buckles, the black drive shaft and the additions described below. The floor itself is blue-grey.

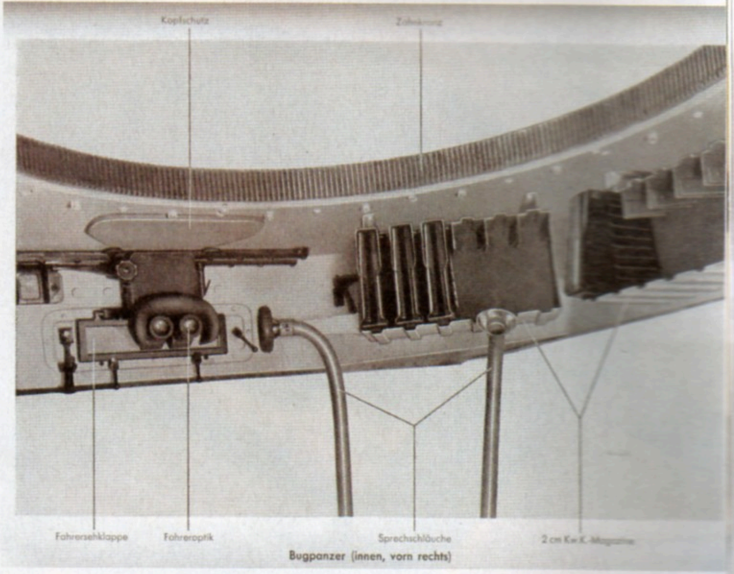
Omit DML part C57, which doesn't appear in photos, and fix the oddments bin C5 directly to the hull side. On top of it goes a small black box, apparently a wiring junction, though the wires themselves are hidden behind the gearbox. The angled front of the fuel tank needs some additions – the leather case for the turret's direct gunsights used when the telescope was broken, and a green spare MG barrel case. Three signal flags may also have been carried as in earlier marks, but might have been dropped from the *Ausf F*. I made mine from scraps of plastic sheet, but then decided to leave them out anyway. On the face of the fuel tank there should be a fire extinguisher (green with brass knob, black clips, I added one of Archer's fire extinguisher labels) above the drive shaft housing plus DML's satchel and the small bin J37. The filler spouts on top of the fuel tank are too short, so add 1mm discs to their bottoms to get the correct height. The cable conduit on the face of the tank needs to be extended with plastic rod bent to run along the top of the gearbox and disappear under the glacis.

Add a 7 mm X 3 mm triangle of card to the front corner of the firewall, with a black leather head pad 6 mm X 6 mm, tapering to 5 mm at the top. Use DML's air cleaner, which is not quite the same as the one in the Bovington tank, but seems to have been used in the *Ausf F* as an alternative.

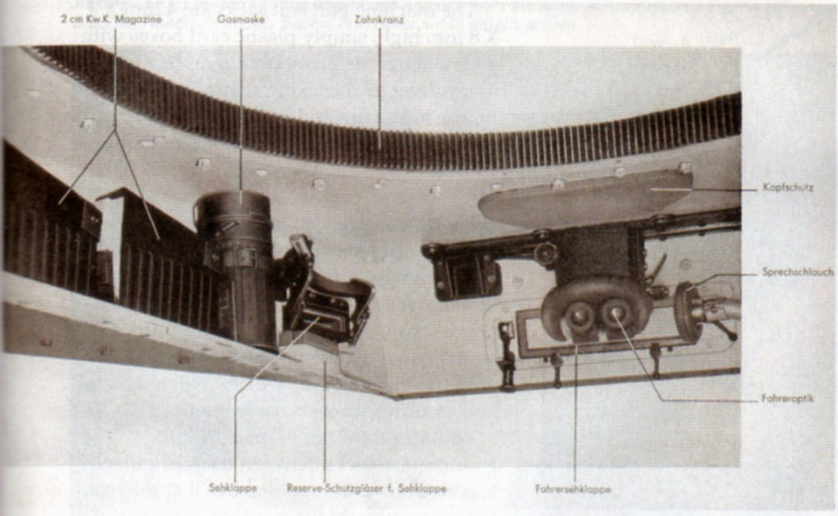
ABOVE & BELOW: The completed interior viewed from both sides. The completed interior viewed from both sides.

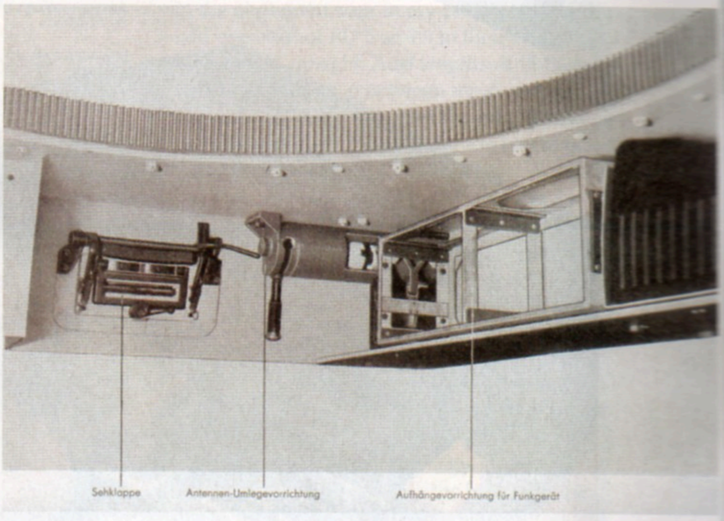



2 cm Kw.K. Magazine
Feldflasche
Gasmaske
Verbandskasten
Motor-Luftansaugstutzen


Kopfschutz
Zahnkranz
Fahrersehklappe
Fahreroptik
Sprechschläuche
2 cm Kw.K.-Magazine
Bugpanzer (innen, vorn rechts)

ABOVE LEFT: Right side interior stowage reveals the main rack for 2 cm ammunition, suspended from the hull roof. The water bottle, gasmask case and first aid box were carried elsewhere in the Ausf F. ABOVE RIGHT: Hull top front interior stowage and the front 2 cm ammunition rack. The speaking tubes (sprechschläuche) do not seem to have been fitted in the Ausf F. BELOW LEFT: Hull top left front interior stowage. This shows how the driver's gasmask case and the pair of two 2cm magazines were carried in the sponson. BELOW RIGHT: Hull top left rear interior stowage and the radio rack in the sponson along with its aerial raising device.

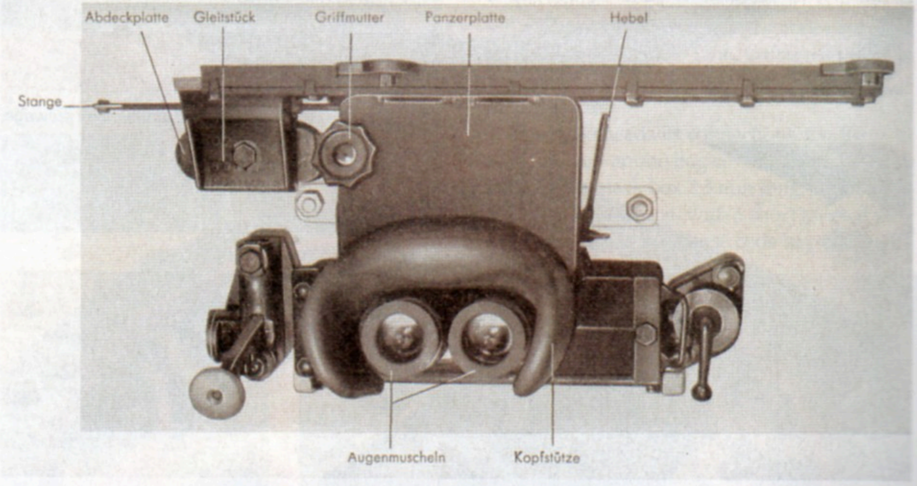

2 cm Kw.K. Magazine
Gasmaske
Zahnkranz
Kopfschutz
Sprechschlauch
Fahreroptik
Sehklappe
Reserve-Schutzgläser f. Sehklappe
Fahrersehklappe


Sehklappe
Antennen-Umlegevorrichtung
Aufhängevorrichtung für Funkgerät

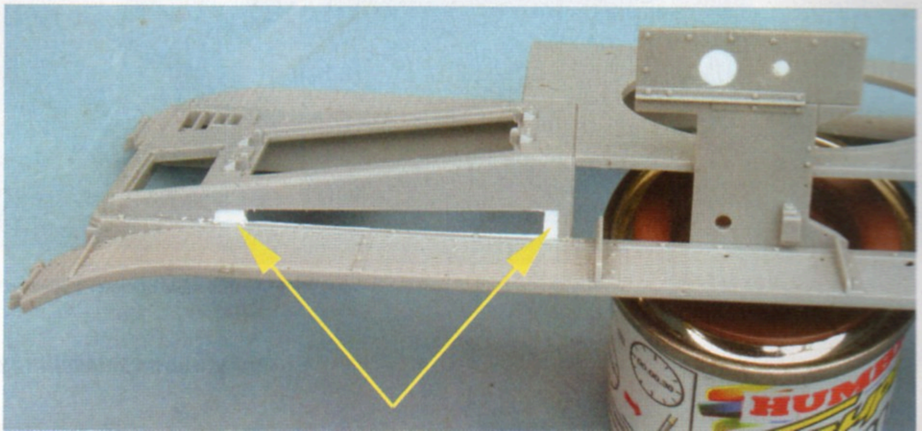
'Praise the Lord and pass the ammunition'

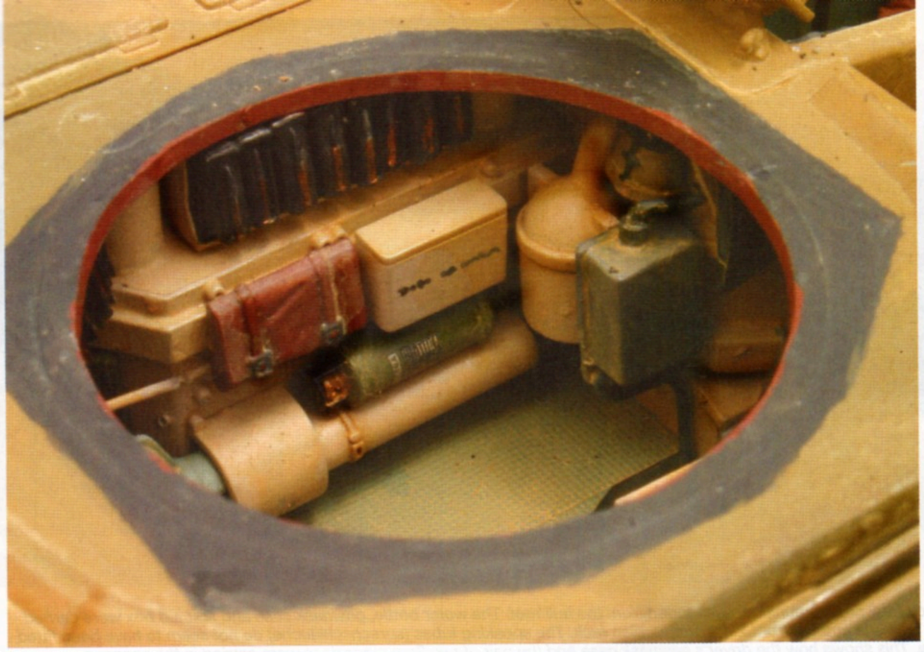
For some reason DML fails to provide any of the ammunition stowage, a rather important and conspicuous thing in any tank. There are two bins for 10-round, 2cm magazines with the shells in them pointing upward; one holding six magazines suspended diagonally under the front of the turret opening and one for eight on top of the fuel tank, and two bins each for two more in the port sponson. Both of the bins are actually suspended from the hull roof. MG belt-sacks are all hung on the left hull wall, 11 along the bottom with above them five at the rear and one at the front separated by other stowage.

Tristar's kit 036, '20mm Ammunition and Accessories for *Kwk/Flak 30/38'*, provides four, 10-round magazines as well as six 20-round magazines that can be cut to the same length, so you'll need two sets unless you have some spare DML 20-round magazines to cut down, as I did. Unfortunately, the Tristar magazines are thinner than the DML ones so can't be mixed in the same bin without this being obvious. The eight-mag bin is 18mm long, 7 mm high, and 5.5 mm deep, but note the curve at the bottom of each side; mine were made with a Historex punch & die set by punching the plastic card with the largest punch and cutting the part round the hole afterwards. Raise this bin from the fuel tank

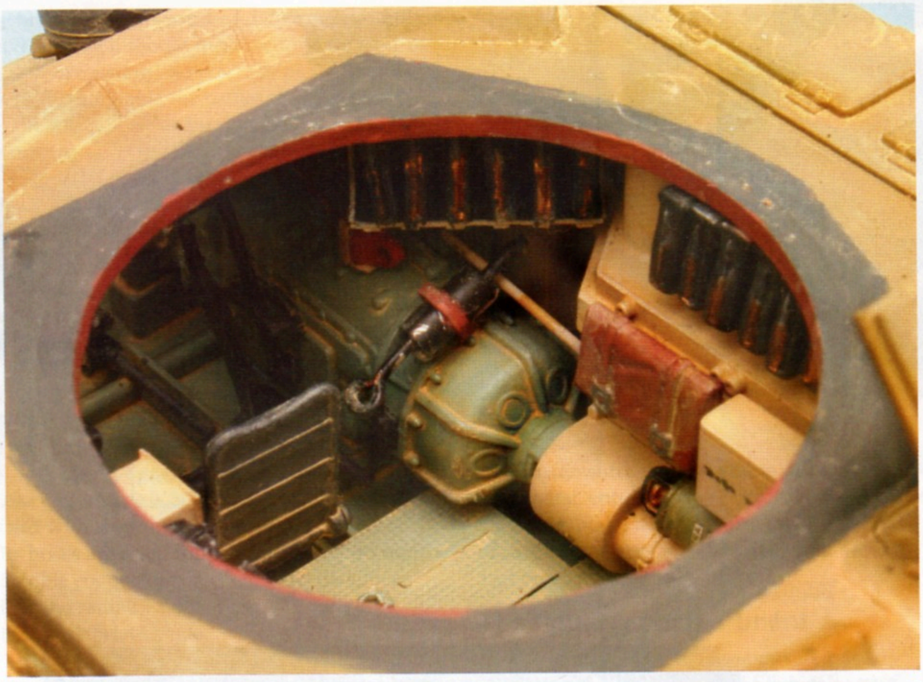

Abdeckplatte
Gleitstück
Griffmutter
Panzerplatte
Hebel
Stange
Augenmuscheln
Kopfstütze

ABOVE: The driver's binocular periscope is included for anyone who wants to build the model with a removable hull top and will, therefore, need to show this feature. BELOW: Filling pieces for the air intake and firewall.

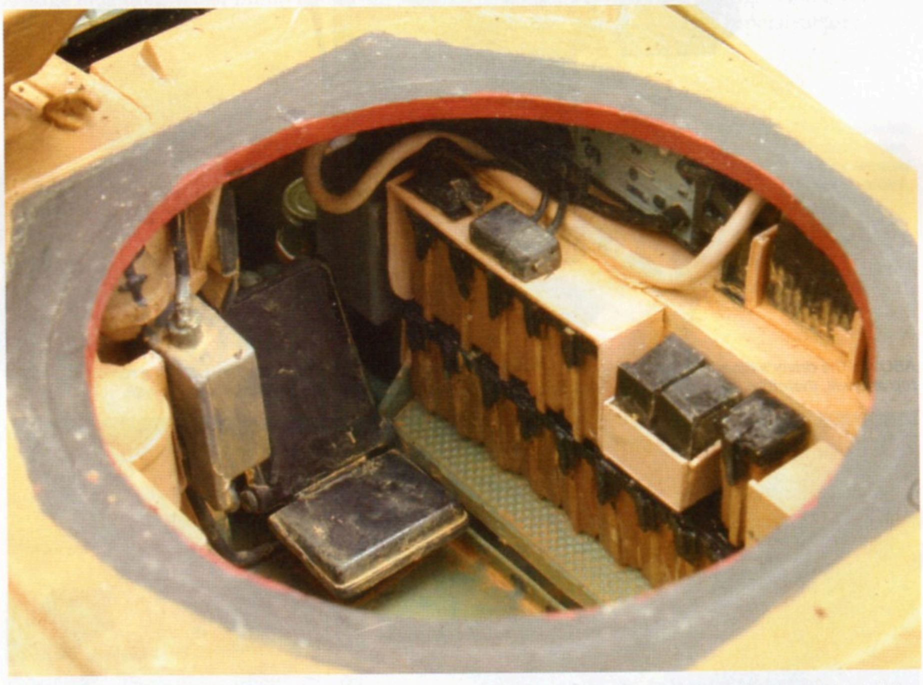




Right side fuel tank and ammunition stowage.



Gearbox and front ammunition stowage.



The radio operator's position.

top with 2 strips of 10 thou card to put it at correct height.

The six-magazine bin is 14 mm X 7 mm X 5.5 mm with the same curve at the bottoms of the sidepieces. Add six strips of 1 mm X 10 thou card under bottom to simulate its ribbed construction and two more to the top to provide the correct gap from the tank's roof (there's no need to simulate ribs on the eight-magazine bin as they're invisible); my photograph shows where it fits. The two-magazine clips in the left sponson are 7.5 mm wide, 4 mm deep, and 5 mm high at back sloping to 3 mm at the front. Trace the curved back along a magazine and add the sides and bottom to it, then add three card strips inside the rear and two squares inside the front as in my photographs. All bin interiors are black and their outsides cream; the clips are cream inside and out. Magazines are gunmetal black with brass cartridges and grey metal bullets.

The machine gun belt sacks are 4 mm X 4 X 8 mm high, simply plastic card boxes with added details as in my photographs. Cement them along card backing strips, 33 mm long for the lower run and 16 mm for the top run. Add card ends to both strips and to the single sack. The top run needs a cover from 10 thou card, cut to fit neatly over their tops and sides; note the curved bottoms to the sides. A plain card rectangle should go on the rear of the triangular floor back, up to the bottom of the cover's side. The actual sacks are nondescript, earth-brown canvas with paler straps down their fronts and visible sides, with their lids and 'lips' black-painted metal and securing straps black leather.

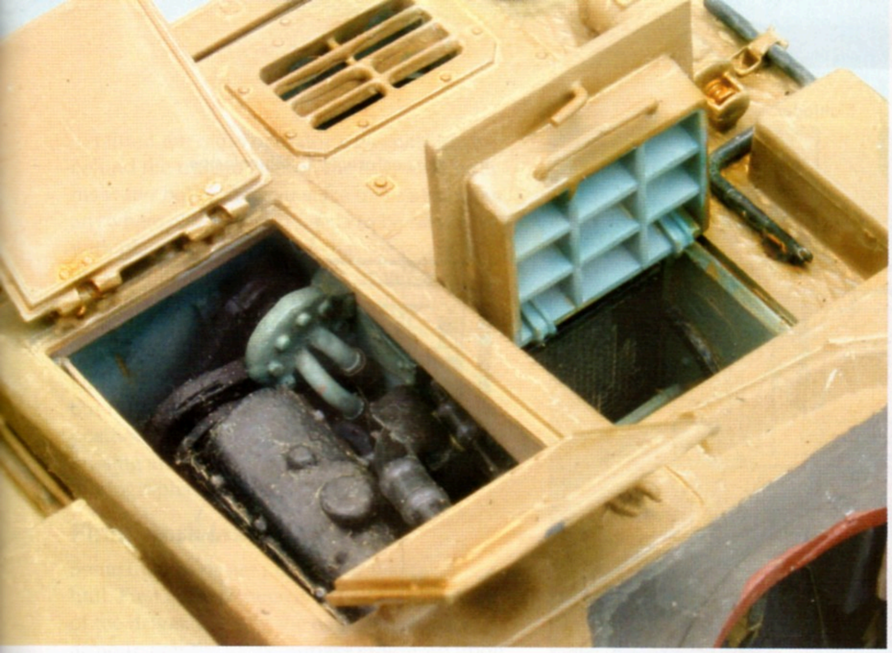
Fit the bottom run of machine gun ammunition sacks between the triangular braces. The top run goes above it at the rear, with the cover. At the front is DML's part 67, intended to be the bin for spare periscope heads, but double the true size. Turn it on its side, cut it in half and fit a plastic card front. It is cream and goes right at the front. Next to the rear is the single ammo sack, and beyond that goes a bin for two spare glass vision blocks, 6 mm wide, 4 deep and 3 high with a central divider. I made the glass blocks inside it by laminating clear sheet (from the packaging of some small item) with Humbrol Clearfix and surrounding them with card strips painted black.

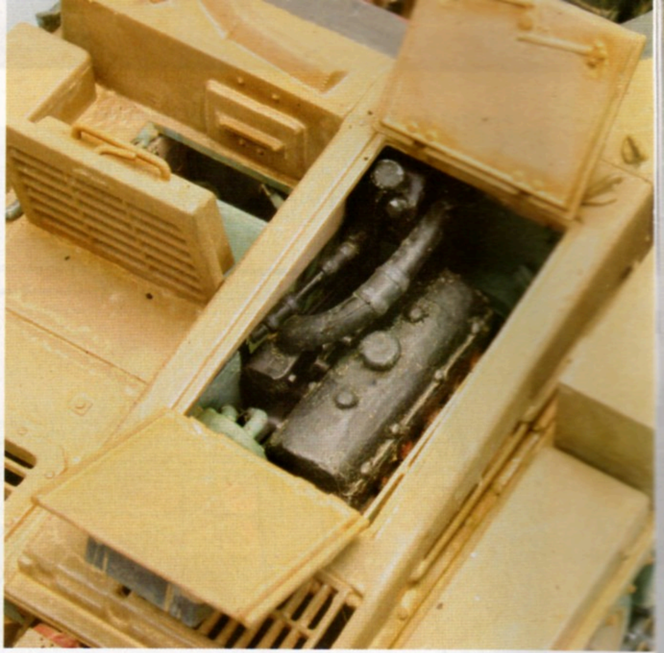
Check all measurements while you're making these parts, so they fit neatly in front of the top set of ammo bags. A gasmask case goes on the back of the cover for the top ammo bags, and a water bottle fits between the air cleaner and the triangular brace added to the firewall.

The radio and other additions

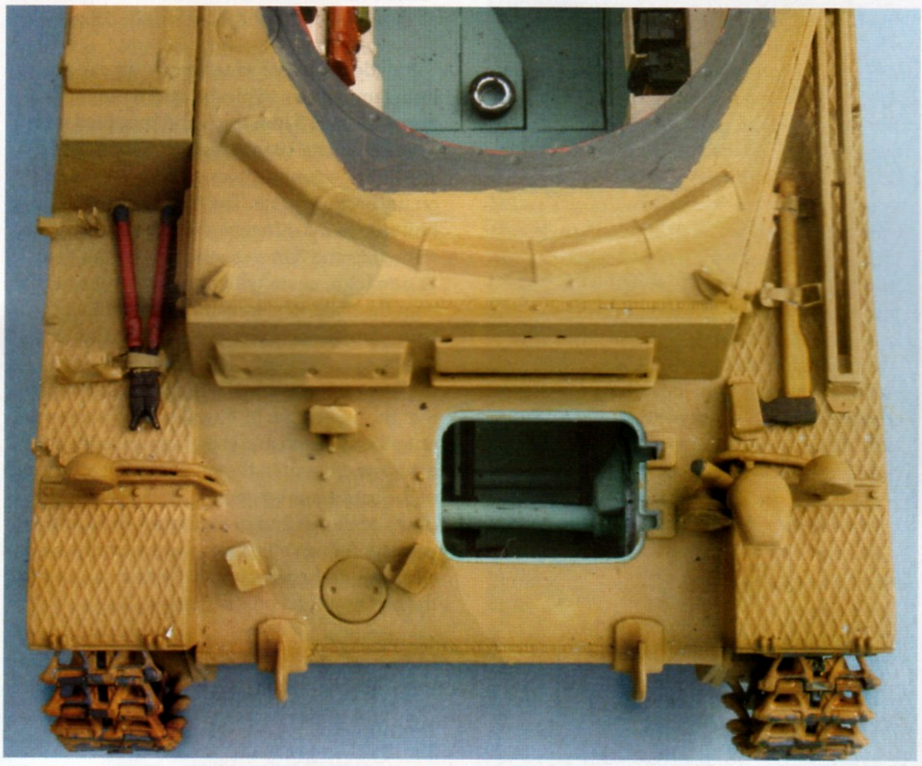
Every tank has a battery, and the *PzKpfw II* had one on the floor behind the radio operator's position beside the triangular section of the firewall. I believe it was in a box, like that of the *PzKpfw I*, so I made one from card 12 mm long, 6 mm wide and 6 mm high. Cables must have run from it to the engine bay, but their positions are not visible.

The radio set is provided, DML parts RD1, 2 and 3, but for some reason DML has you fit them in the wrong place and omit their shockproof mount. Fix RD1 and 2 together





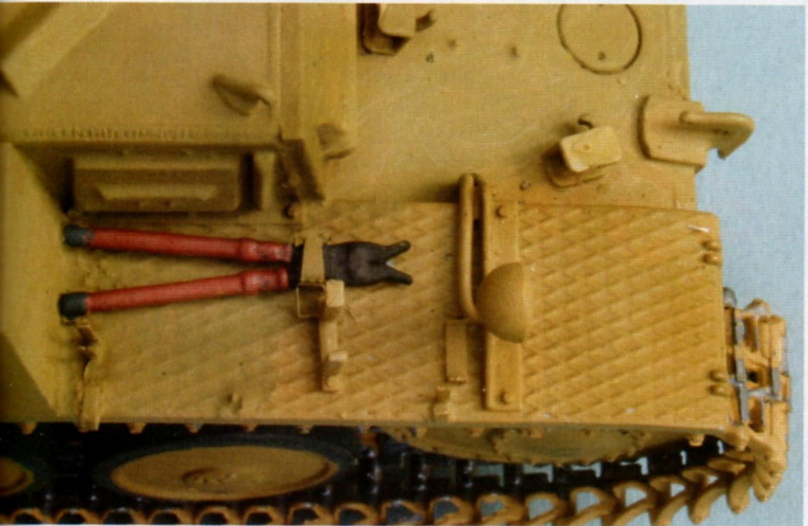
ABOVE LEFT: Looking into the engine bay hatches from the front. ABOVE RIGHT: Engine air intake and radiator pipes. BELOW: Headlight supply cables and other small details added.

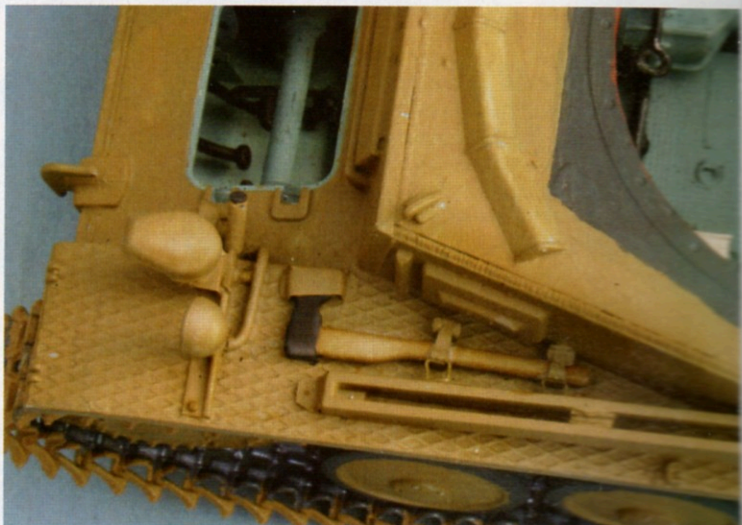


in the alignment seen in my photograph and add one each of RD 5 and 6 to their ends, with the 'Y' upright. Add lengths of 10 thou X 10 thou card strip between these ends to make the top and bottom of the mount, and two snippets of thin rod at the top centre of the sets for their connectors.

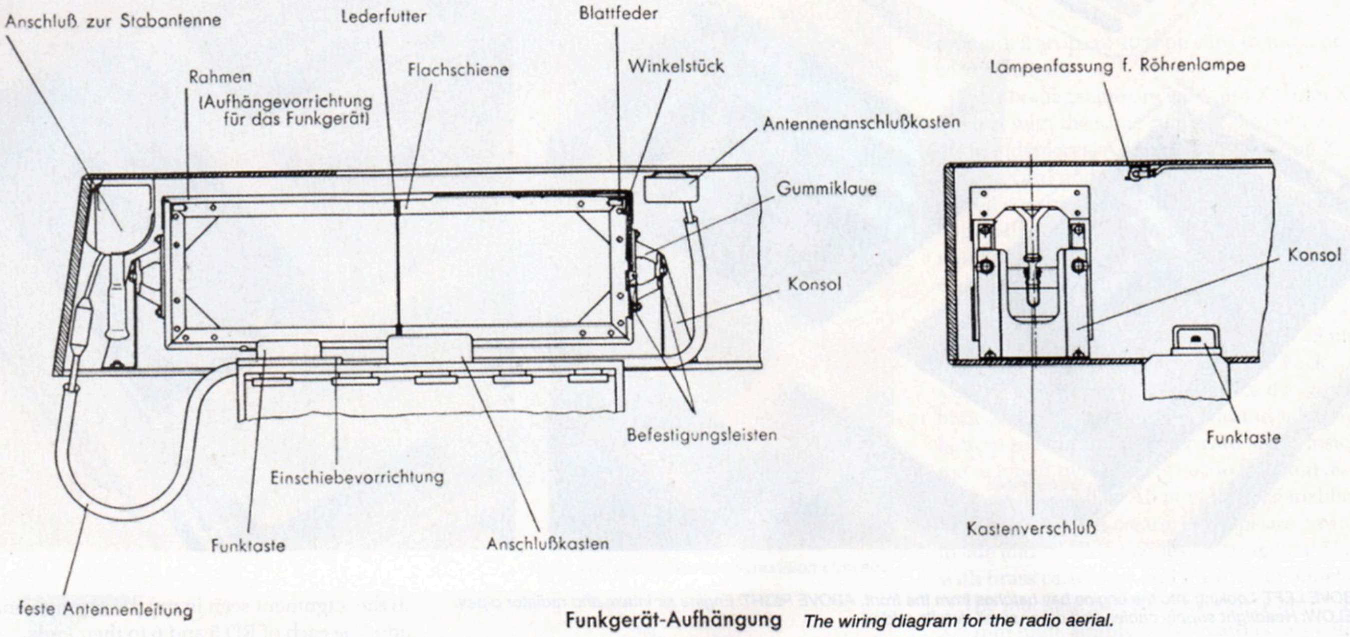
Now make four blunted V-shapes of thick card and attach them to RD 5 and 6. Onto these go four triangles of 10 thou card with 10 thou strip vertical members and bottoms. The radio sets appear to be a light grey, the mounting frame is black and the 'blunt V's are rubber. Radio details are black, white and grey metal as seen in my photograph. The radio setup fits at the rear of the port sponson, just clear of the aerial mechanism, which is DML part J47. The two, two-magazine clips go in front of it, meeting at the angle of the hull, with the driver's gasmask case in front of them. You will need to trim the top of this to fit under the roof, which cannot be moulded at scale thickness without risking warps. The gasmask case, like those elsewhere in the tank, is *Olivgrün* with a drab strap down its front and a light drab securing strap.

The radio needs its connections. On the machine gun ammo bag cover in front of its left end is a black box 2.5 mm long, 0.5 mm high and 2 mm wide, with a short lever at its front end; this is the Morse code key and its





ABOVE LEFT: The right side trackguard with the wire cutters in place. ABOVE RIGHT: This is how the axe is clipped to the track guard.


Anschluß zur Stabantenne
Lederfutter
Blattfeder
Rahmen
(Aufhängevorrichtung für das Funkgerät)
Flachschiene
Winkelstück
Antennenanschlußkasten
Gummiklaue
Konsol
Befestigungsleisten
Einschiebevorrichtung
Funktaste
Anschlußkasten
feste Antennenleitung
Lampenfassung f. Röhrenlampe
Konsol
Funktaste
Kastenverschluß

Funkgerät-Aufhängung *The wiring diagram for the radio aerial.*

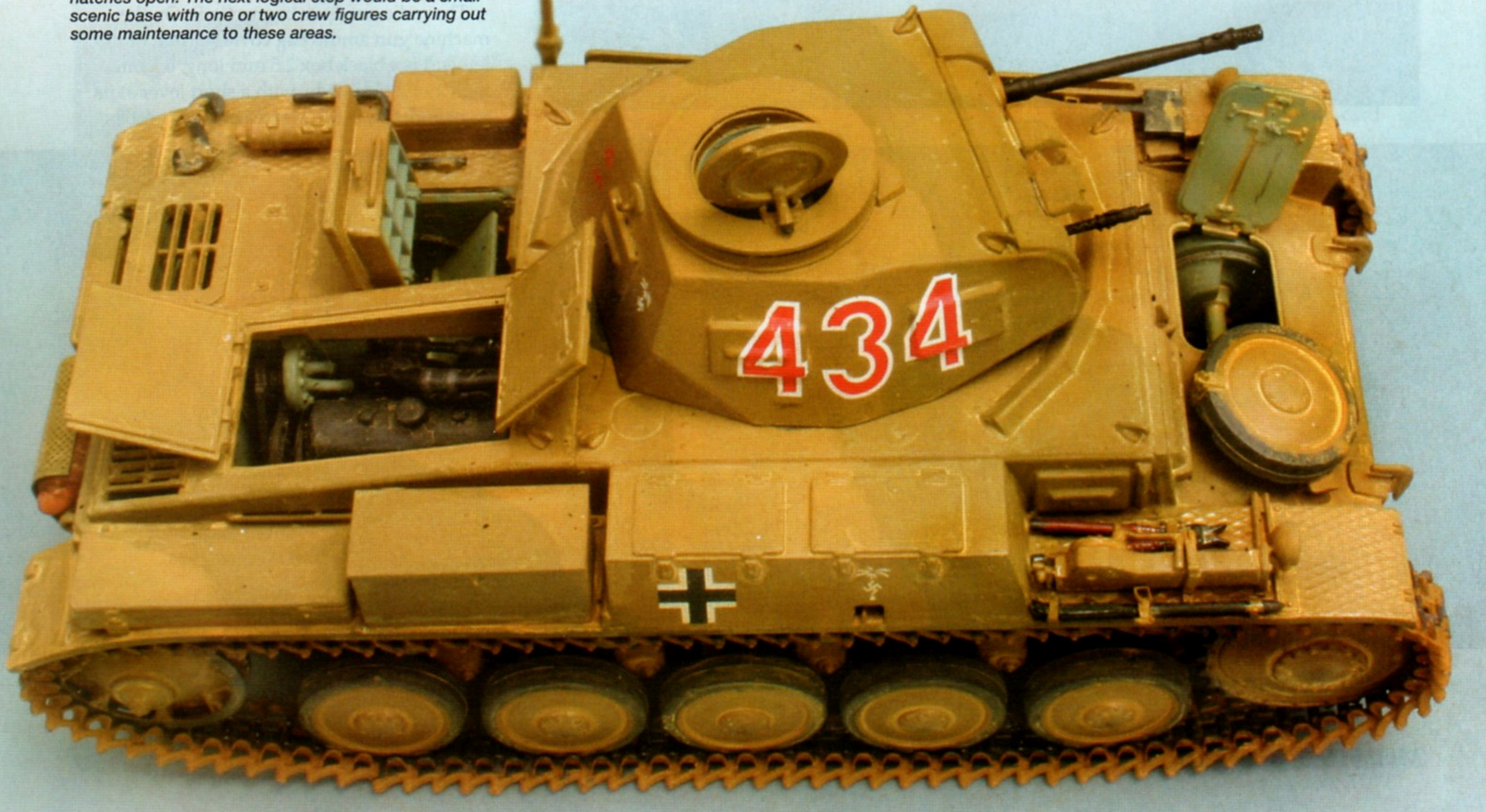
lead connects to the rear end of the front radio set. Forward of this is the connector box for the operator's headset and microphone, 3.5 mm long, 1 mm high and 2 mm wide; its leads run from its back to the rear ends of the front and rear sets. A small black box also goes on the rear superstructure wall under DML part J47.

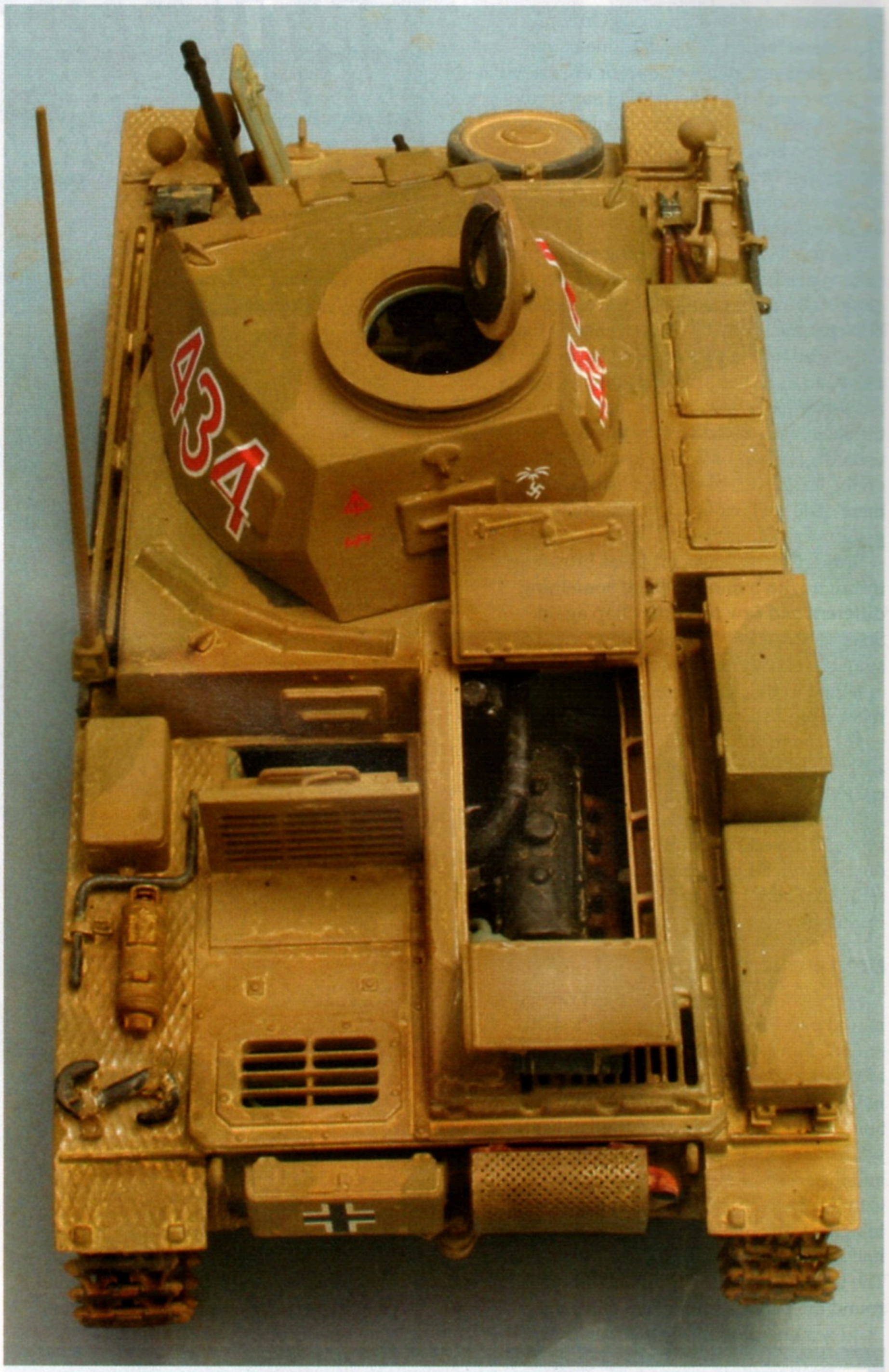
While you're in this area, fill the slot that leads to the 'drill here' mark for J47's location and just leave enough of it to fix J47 without drilling the hole. There should also be another one under the roof just forward of the radio, but it will be invisible when the hull is joined together on the finished model so can be ignored. A thick cable cover runs from this last box behind the two boxes on the ammo bag cover and loops down at the end of the cover and up again to the box under J47. From there a thin cable runs to the outer end of J47. All this cabling is a bit fiddly to tweak into shape and fix, but makes a world of difference to the model.

There should also be two transformers for the radio, which according to the British intelligence report prepared on capture of a *PzKpfw II Ausf F* are both on the hull wall beside the operator. This seems to be an error, since there's nowhere for them to fit among the machine gun ammo stowage. There is, however, a base for one on the side of the air cleaner in the Bovington tank and the marks where *something* was fixed to the hull wall between the ammunition stowage and the radiator, so my dimensions are approximations based on those. Cables ran from them to the radio sets and, in series, to the battery, but little evidence of the actual cable layout remains so I made some guesses.

I made the transformer on the air cleaner from laminations of plastic card 8 mm high, 6 mm wide and 3 mm thick and mounted it on a backing plate 10 mm high and 6 mm wide, a small connector box taking the space under it on the backing plate. The transformer on the hull side had a different shape 9 mm high, 5.5 mm wide and 3 mm deep on a backing plate 11 mm high, again with a connector box under it on the plate. The transformers and their back plates seem to have been grey. Cables run from one end of each connector box to the forward ends of each radio set; I assumed that the one on the hull wall simply went up onto the sponson and the other up to the roof, across and down to the set. From the other end of the connector box on the wall a cable runs down to the far end of the battery box, and the corresponding cable from the one on the air cleaner simply turns under the transformer to the box moulded on the firewall.

Completed with its engine and front transmission hatches open. The next logical step would be a small scenic base with one or two crew figures carrying out some maintenance to these areas.





I fitted the radio operator's gasmask case behind the transformer on the hull wall, with his water bottle above it since there's no room anywhere else. His seat needs to be raised with plastic card scraps so that the top of its back is in line with that of the driver, and positioned in line with the firewall. This does seem an uncomfortable position for reaching the radios, but it matches photographs. DML tells you to fit it facing the tank's rear, but this would be an completely impossible position for operating the radios and passing ammunition to the commander and photographs show it facing forward.

Final work inside the hull

Some final parts are needed for the lower hull. First are the transverse brace in front of the driver, actually the end of the bow armour, and the gyrocompass mounting upon it. Cut a piece of plastic card to fit from the inside of the sponson floor across to the inside of the right side hull wall, with concave ends as in my photograph and a strip with bolts on its top. Note that the right end is above the hull wall; you'll need to dry-fit the hull top to make sure of the clearance so it doesn't get pushed down at the free end, but since an ammo bin hides that end there's no need to be exact. Don't try to make the left side end an invisible joint with the sponson floor, the real thing had a visible joint there.

The gyrocompass housing on the left end is a simple square of plastic card with a large hole punched in it, made by punching the hole in a larger piece and trimming it to the right size. No photograph I've seen shows the actual compass in place, so it seems that this was an item that wasn't actually fitted and the housing can be left empty. At the other end there's a black leather head cushion for the radio operator. This fits on the side of the firewall, with its lower end bent into the cut-out seen there and a sidepiece to the inner end of his vision port.

In the upper hull it's a simple matter to add the vision ports, though take care lining them up as they're shorter than the locations for them. The inside faces of all three armour covers are 'panzer grey'. The colours inside are interior cream for the frames W1 and W2, with black hinges at the top of W1 and a black lever at the bottom of W2, and black for W3 and the surround of glass block W4.

No vision block is called out for the driver's front port, though a suitable one is provided as clear part P12 and again needs its frame to be black. Its mechanism isn't given, but would be almost invisible anyway. The binocular periscope for vision with the armoured port closed is also black and should be fitted to the roof just to the side of this block; it was on a sliding mount under the roof and since DML doesn't provide the apertures in the front of the plate for it to be used it's better to have the port shown open.

You may be wondering whether the port in the right side was a fixed dummy; it wasn't, it had a glass block and could be opened, even though the driver would hardly be able to see through it. The position of the instrument panel may also have you puzzled. DML has it right, though you need to slice off the locating two tubes under the glacis and simply fix it where they were. You also need to remove its locating pins and slice a bit from its top, since DML has moulded it the correct size, but the glacis plate, like the hull top, is unavoidably too thick so there isn't enough clearance for it over the gearbox without doing this. It does not go on top of the transmission, where the Bovington tank now has it. I painted it black and added a revolution counter and temperature gauge from Archer's set AR35214, German instrument faces.

While you're in that area, make and fit a short vertical strut beside the glacis hatch and give it a rod pointing down and forward; this is the only visible part of the throttle linkage and can be seen through that hatch if you are leaving it open. The last thing to do is to fix the final 2cm ammunition bin as seen in my photograph.

Before you fix the hull top to the bottom there's one thing to do to its exterior: remove the anti-slip surface from the rear of the starboard trackguard, from the rear support to its end. The *PzKpfw II* had a plain plate here, though the rear folding section seems sometimes have been anti-slip. Don't be fooled by the apparent gap between the hull top and the lower hull's vertical rear plate when you fit them together; DML has correctly reproduced the slight recess here and it looks like a gap.

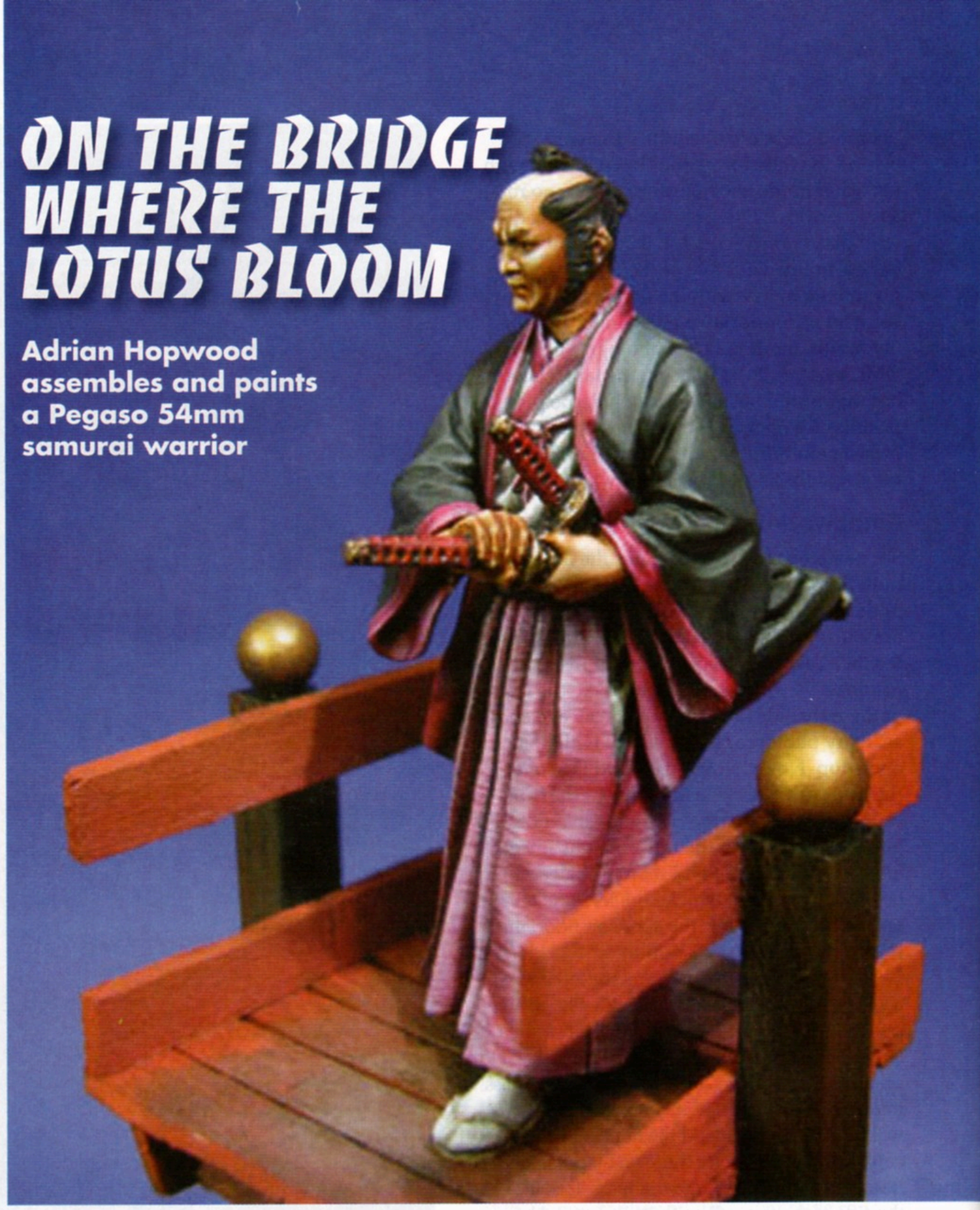
Availability

Dragon Models are imported into the UK by The Hobby Company Ltd., Garforth Place, Knoll Hill, Milton Keynes MK5 8PH.
Tel: 01908 605686. Fax: 01908 605666.
sales@hobbyco.net
enquiries@hobbyco.ne ■

This feature will be continued in the next issue where we'll move inside the turret…

ON THE BRIDGE WHERE THE LOTUS BLOOM

Adrian Hopwood assembles and paints a Pegaso 54mm samurai warrior



I seem to have leant towards Oriental subjects recently, this little one being inspired not by it's box art or advert, but by a lovely painted piece that I saw at the 2007 AMSS (Antwerp Model Soldier Society) Show. So stuck was I by the painting of the figure, that I rushed off to the trade hall to buy one of only two that were for sale – a lucky find considering.

The model itself is everything you'd expect from Pegaso, and the fact that it's closer to 62mm tall, rather than the 54mm as advertised bothered me not at all – it just makes it that little bit easier to paint. So what happened in the mean time then? After all, I'm no sloth with a brush. Well, he got shelved! I came back from the show with all the wonderful ideas that one usually gets, and promptly lost this little fellah on the 'to do' shelves; (plural - shelves is right, there's a lot of good models screaming at me to get some paint on them!)

Springtime in 2008 and I was browsing through with a mind to paint something different and saw this little chap again. So even though I've done a few Oriental subjects, I thought 'what the heck' let's do it.

Allied to this, a painter I very much admire the skills of is Dave Ashby and he'd painted some linen trousers on what I thought was a 54mm figure. (OK it was a 75mm kit – I didn't read his post on the forum correctly!) Anyway, the linen was a coarse weave, which he'd portrayed by painting the fibrous texture on the model. I thought I'd like to try this, and what better figure to do it on than this. But that's getting way, way ahead of myself.

Preparation

The kit had to be cleaned up to get rid of any mould part lines by scraping with a sharp scalpel, filing with a very fine file, or using a curved and wicked looking dental pick to remove any unwanted and unsightly flaws. Some of these are quite hard to find; Pegaso's white metal moulding is of very high standard, and the easiest way to find such casting lines is to put the component on a flat surface and imagine a line that slices through the part about half way up from the surface it's resting on. The line should be there, and it will run right round the part at more or less that level.

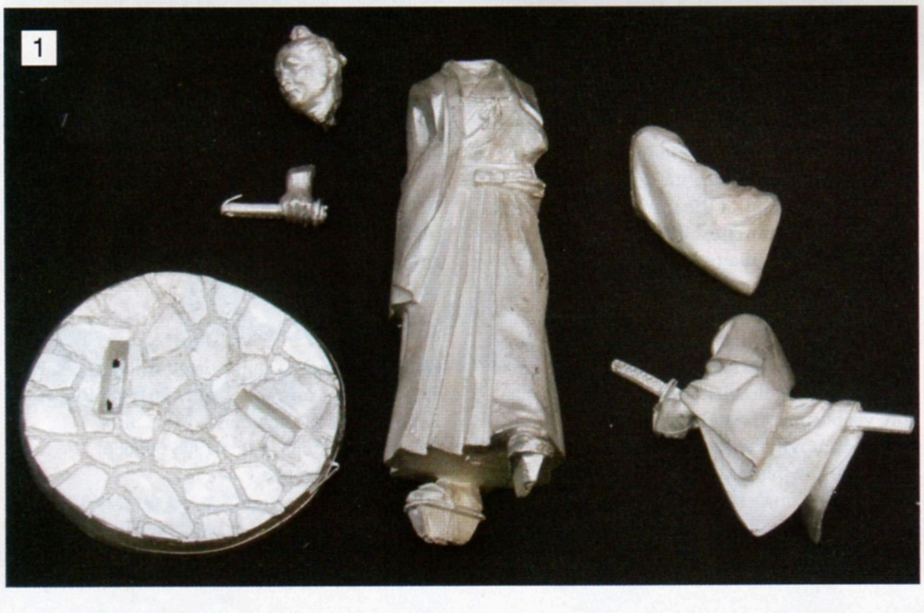
Once you've found the run of the mould part line, it's usually easy to clean it off, and the only difficulty could be the 'U' shaped creases of detail that it might pass through and this is where a curved dental pick comes in. I use the curved surface to smooth the white metal alloy, rather than trying to carve a portion off the model. Because the dental steel is much harder than the white metal, the tool will gradually burnish the area of the model level. It's not a quick process, but better than trying to get a blade of whatever shape into such a recess.

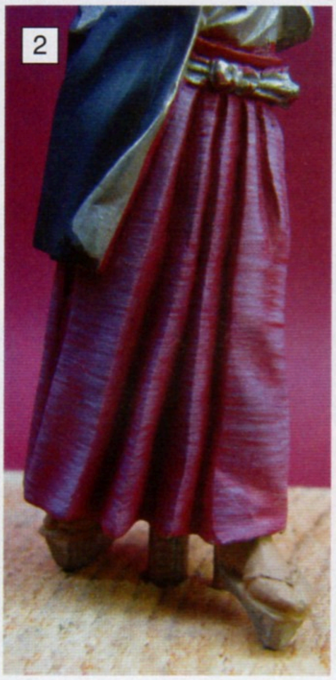
As you'll see in **Photo 1**, this appears to be a simple enough kit, and the fit of parts is good. The many folds - particularly on the draped cloth of the sleeves - should be treated to careful inspection at the cleaning stage, and test-fitted regularly during the painting. (If like me you paint the kit in separate pieces, only adding the glue once the painting has been done). This checking will make sure that you're aligning the shadows and highlights correctly, and it's important that the shadows fall naturally and in the same direction for the miniature to seem lifelike.

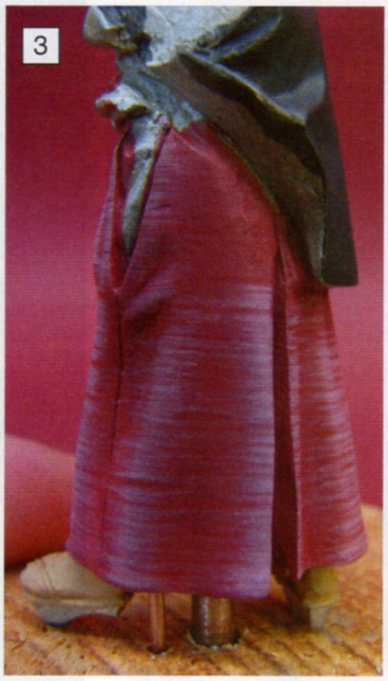
Pinning and Painting

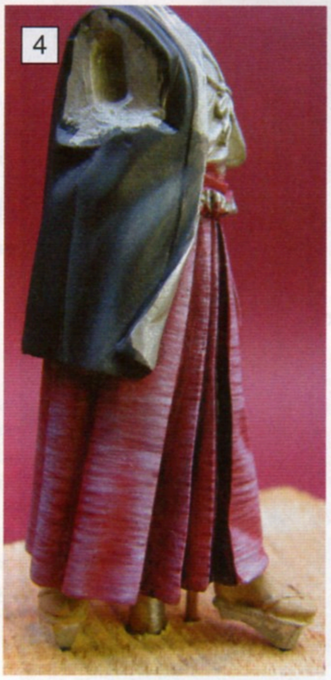
With the model cleaned up, I could add pins to all the parts to act as handles whilst I added the layers of paint. When painting this figure I wanted to do this horizontally striated effect, and I knew it would have to be done in acrylics. The simplest way to do it would be to start off dark, and work the lighter colours over the top. Simple, eh?

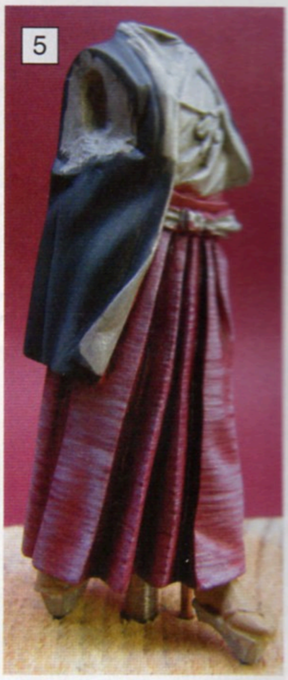
I decided upon a fairly dark pink colour as the starting point, the colour being used is one of the new Games Workshop (GW) range of 'foundation colours' – 'Mechrite Red'. It's a rusty-pinkish colour, goes on very smoothly,











and has superb density of pigment. After two coats of this over a white primer, I began altering the colour by adding white in small quantities, painting very fine lines onto the model and then adding just a bit more white.

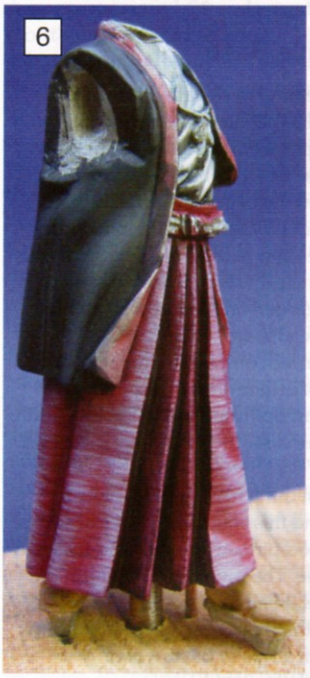
The paint was kept to quite a thin consistency, so that individual strokes of the brush didn't actually show up, but after three passes of the brush on any one area, a faint line could be seen building up. I began working over all of the skirt, gradually turning the model around as I added a single layer of paint, and by the time I'd got back to the starting point, the paint was fully dry.

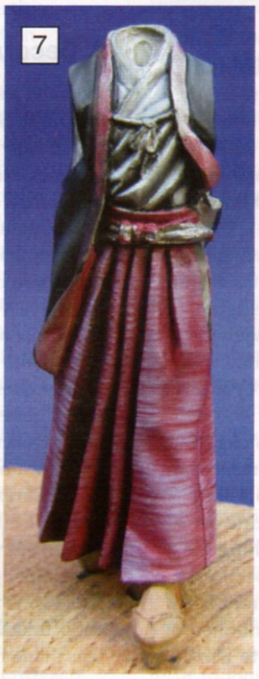
It's a very easy method, just tedious and time consuming; plus a bit frustrating, as the colour change is very gradual. I probably added around 50 or 60 coats of paint, working to build up the striations as they began to appear after the first 10 or so coats, and allowing some dark areas to remain to denote the creasing and weave effect of the material. **Photo 2** shows the model at about the halfway point; the individual strokes of the brush can be seen here in this close-up. **Photo 3** shows a side view where the colour change is more gradual because of the smoother creasing of the cloth.

Photo 4 shows how some of the deeper shadows have been added on, one or two that need further work on the points of the crease (about halfway down the skirt) need blending in a bit more. **Photo 5** shows these dark strokes a bit better and how the depth of shadow has been forced within the deeper creases at the front of the model.

It probably took around 20 hours of work to get through to finishing with the acrylics, and then adding some deeper shadows at the front of the figure with a dark red colour mixed from oils.

Photo 6 is a shot from a little further away, and you can see how the paint begins to look smoother. This will be enhanced by adding washes over the whole area to help knock back the harshness of some of the highlights, and will make the colours balance out. I've begun the jacket in this shot too. I wanted a very dark charcoal grey, and used acrylic paints to render it.





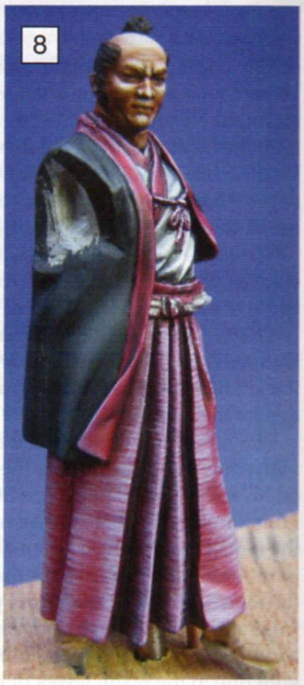


Photo 7 is a view from the front, and it can be seen that the smoother areas have benefited from the striated highlights, the variations in the creases standing out quite prominently. The basic colour to start off with was a dark grey, mixed from GW 'Chaos Black' and just a dab of 'Commando Khaki'. This was painted over the whole of the jacket area, and then the mix lightened with some more of the khaki colour, some more water added and then the process of building up layer upon layer of very thin coats of paint so that gradually the colour changed on areas that would catch the light.

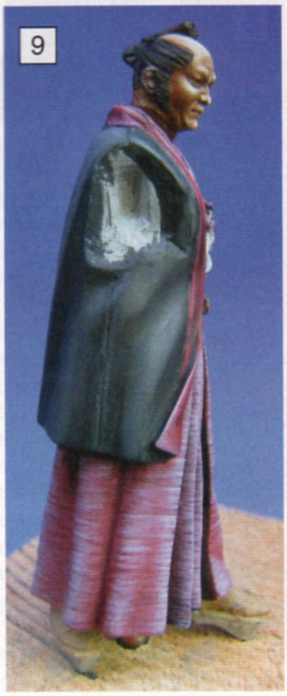
Although the process is very slow and tedious, it's satisfying to watch the highlights gradually appear; as by gradually lightening the colour and adding more water to keep the mix very thin; the illusion of smooth gradations in colour is built up.

Finally, pure 'Chaos Black' is thinned to allow me to paint on the deepest area of shadow, and also to add very thin lines to denote where there are seam lines joining one piece of cloth to another.

Whilst I had the colours on the pallet, I attempted to paint a light grey shirt. This worked fine, but the harsh and deeply sculpted creases didn't really lend themselves to what I was trying to do, and it's the one area of the model that I remain unhappy with. As it is, I repainted this area three or four times during the course of painting the model, so you might detect some slight differences through the run of photos – it's not your eyes playing tricks, it's me trying to perfect an area I'm not altogether happy with.

Photo 8 shows the head temporarily in place. Also in this shot I've painted in the borders on the jacket. I wanted these to tie in to the skirt, but have them just slightly different in shade. I used oil paints, thinking that the slight sheen they would leave when dried would look like a silky material.

I undercoated with GW 'Mechrite Red' but used Carmine oil colour as the starting point,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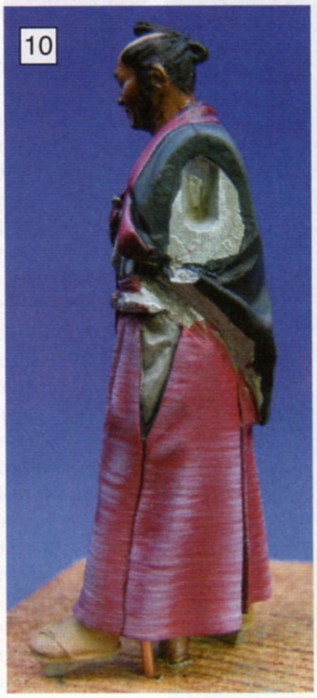
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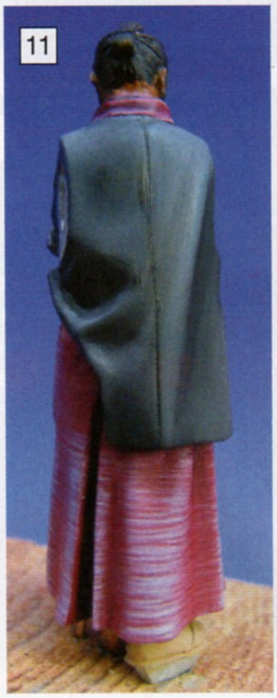
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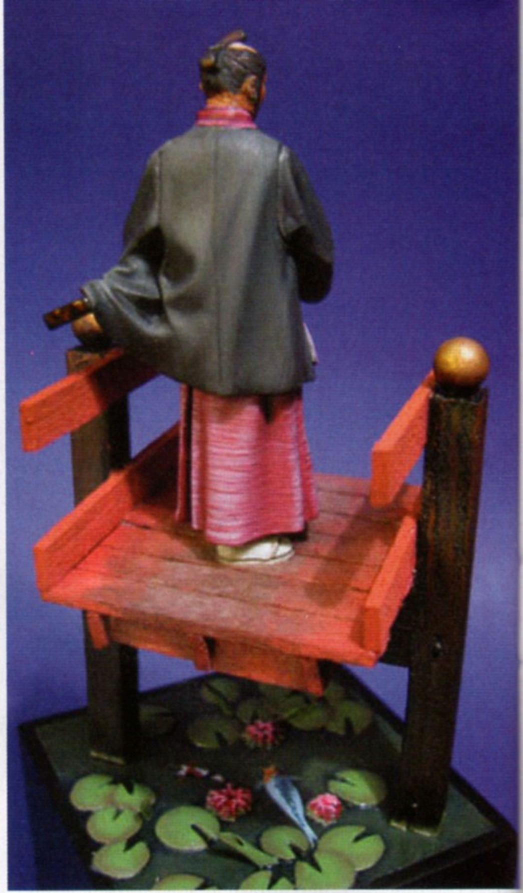
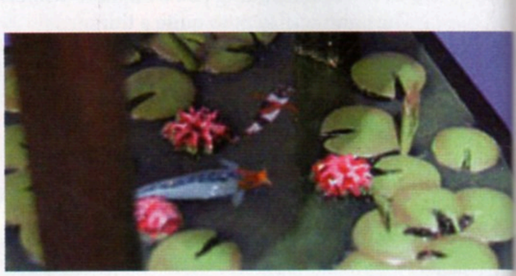




simply adding small amounts of Titanium White to the red to lighten it and gradually highlight the areas that would catch the light the most. I also played about with the shadows and highlights to add shape to the edges – basically adding detail and flow to the cloth where there wasn't any.

The edges of the shirt were painted in this way too, as was the small cord that fastens the edges of the jacket at the front of the figure.

Photos 9 and **10** show different views of the model at this stage, the slash in the skirt at the left hip being painted with a grey insert to denote the underwear.

Photo 11 shows his back. I was struggling with some glossy areas near the central seam on his back, and I had to repaint this area. I think it must be some grease residue on the model that I missed when washing the parts, and I had to strip back that section of the model and start again from primer. Very frustrating too, because as I've mentioned, acrylics are rather a slow medium to work with due to the many layers of paint required to make a gradual colour change.

The rest of the model was very straightforward to paint; the only thing I had a problem with were the cuffs on the jacket's sleeves. Whilst the edges at the front and the edges of the shirt are denoted with a sculpted line to show that there is a decorative edging, the cuffs have no such demarcation.

I've seen several of these models painted up now, and all have lacked a decorative cuff. I thought about this long and hard, because not only is it a complex shape to paint a straight line around, getting the two cuffs even would be fun too.

Eventually though, having viewed a lot of Japanese clothing in my reference sources, plus dabbling on the Internet for pictures of real jackets, I decided that the cuffs needed that panel of decoration, and that I'd not be happy with the model if I left it off.

Good job I decided this before the arms were glued in place, I wouldn't like to attempt it without the arms being separated from the body.

A Decorative Base

I wanted something to elevate this model off the plinth he'd be set on, something that would be typically Japanese, although nothing overtly violent, because he looks threatened or wary rather than actually being under attack.

I thought that I'd like to build a pond too, with some lilies and perhaps a Koi carp or two, but as you can see, I was quickly working to having half a garden on the top of something the size of a breadboard!

To make it more compact, I envisaged a short section of bridge above the pond that would raise him up from the level of the plinth, plus give a reason for the placement of a pond underneath.

The simplest thing to do was to make the bridge itself and this was short pieces of square section softwood pinned together and fastened with super glue. The round ball finials on the risers were metal ball bearings from a bicycle shop, and the thin boarding that he stands on was made from strips of Balsa wood.

For the pond, the flat lily pads were small balls of Magic-sculpt, flattened and a thin 'V' shape cut out of each edge before the putty dried. The unfurled leaves were small quadrants of thin paper, curled around between finger and thumb, cut at an angle and glued directly to the base.

The final addition, using a bit of spare putty, was a flattened sausage shape to show the back of one of the Koi breaking the water surface as it basks in the sun.

Fishy Effects

Painting the water was a case of using acrylics to build up from a very dark green to a mid-green between the leaves of the lilies, where the sun is shining into deeper water and showing up the algae bloom in the water. (Can't you just tell I keep fish!)

To get the Koi looking just right (and you're not going to believe this, but it's true) I actually have a very thick book detailing almost every known species of freshwater fish, which gave me around 20 pages of different recognized patterns of Koi. I personally like the Mirror carp scaled varieties, and the grey-blue ones of those are about my favourite. Hence the larger one being painted like that. Yup! I am that sad!

The gloss effect is several layers of thinned varnish applied to the surface to make the water look wet. Lily leaves were painted with various greens and a red blush put around their edges, which is also particular to certain lily species.

The woodwork was painted with Burnt Umber oils, adding some Mars Brown towards the top, and some Mars Yellow and Titanium White to the boards towards their centre, to hint at the wear that would be caused by folk walking on the bridge.

Before gluing the woodwork into position, I added some dark green staining around the lowest edge of each leg to represent algae that had formed on the wood as it remains in the water for any length of time and this can be picked up in the final shots that show the finished model from several different angles.

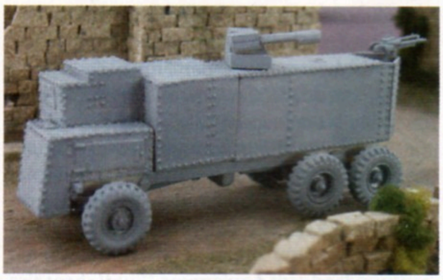
Final Words

Pegaso are probably the world's premier model figure producer, and whilst many of their offerings shout to the prospective buyer, there's the odd one like this that could easily be overlooked. It's not flashy; it doesn't shout at you 'buy me!' It's not even got an animated pose that might catch the eye. But it's a super little piece, and one that I'm very glad that I bought, and more than that, I'm glad that I took the time to put some paint on. ■

Small Scale Scene

● **E-mail:** robin@rbuckland.freeserve.co.uk ● **Website:** www. rbuckland.freeserve.co.uk

A monthly column for military vehicle modellers compiled by ROBIN BUCKLAND



An unusual British subject from The Second World War was the 'Heavy Cockatrice' mobile flamethrower Based on the 6x6 trucks chassis used for the AEC Matador refueller. Matador Models has released a full 1:76 scale resin kit with metal parts for the wheels.

Well, we move into 2009 with plenty of bad news about recession, but at the moment it is the time of new announcements for the coming year. I wonder what we will be seeing? If you don't mind me having a vested interest for a moment, I would hope that manufacturers/importers would keep in touch with new of new releases as they come out, so I can pass on the news here in the column.

Some manufacturers and importers don't even answer polite enquires, including large manufacturers, let alone some of the smaller ones. I am always grateful to those manufacturers and sellers who have supported the column over the years and keep in touch so I can collate what is going on.

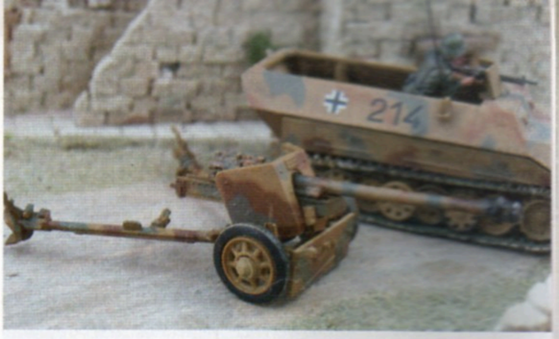
The track record for the column now stretches to about 23 years. Outside of the hobby, my 'real job' is working at the head office of a large UK supermarket, and pretty much everyday get bombarded with suppliers who want to bring their products to our attention, with a hope of selling them. Hence I struggle a bit to understand why I can't get even a reply from some within our hobby. I once had someone reply that a few years earlier, when reviewing another product, I hadn't mentioned theirs (obviously, I won't say who) so they wouldn't bother contacting us. I wish I could just know everything (clearly I am not a teenager any more! …Only joking!)

But I really do rely on people to be kind enough to keep in touch, as I never got on with a crystal ball. At over 4,000 miles away I never knew they existed and if anyone wants to let me know about their products, I will always be happy to feature them here in the column. If we don't feature something you might know about, I can only apologize for missing it; ideally I'd like to catch anything in small scale especially. With a recession upon us (and that is 'official' now we are told), I think we need to do all we can to promote our hobby. To make modellers aware of the quality and variety that is now available to us in the marketplace, and to encourage people to stick with the hobby, support our small 'cottage industry' manufacturers as well as encourage newcomers to our hobby. While prices have gone up, it can still be a relatively cheaply priced hobby if you are staying in and are looking for something to occupy your spare time rather than a more expensive trip out. OK, appeal over, now let's move on.

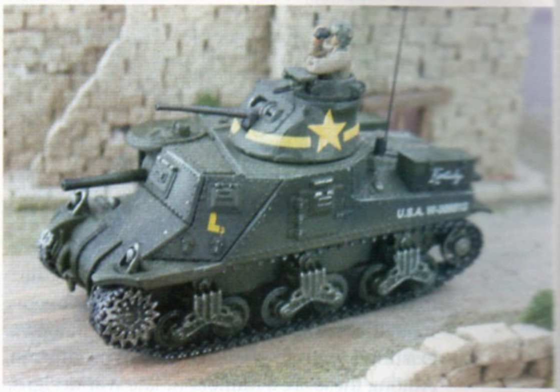
Matador Models

Among our new 1:76 scale models this month is one of those unusual British subjects from The Second World War which have to go down under the category of 'odd'. Matador Models has released a full resin kit, though with metal parts for the wheels, of the Heavy Cockatrice, one of those things, which I would put under the heading of a 'Heath Robinson-ish' contraption. Based on the 6x6 trucks chassis used for the Matador refueller, this is an armoured body for a mobile flamethrower. It's really a collection of flat armour plates riveted together and mounted on the basic truck chassis. It provided simple armoured protection for the driver and the engine, then a rear compartment with fuel tank for a small turret mounted flame projector. At the back is an open top position for a gunner along with a pair of machine guns for local defence. The running gear would have been very exposed to enemy fire, but it made the equipment mobile, gave some protection to the crew and could have been easily built quickly and without complex production facilities. In the early war period it offered an idea of equipment for the defence of Britain after we lost so much equipment at Dunkirk, and were faced with the threat of invasion. That never happened of course, and I suspect any potential crew for one of these would have been thankful. The kit itself is very straightforward and the end result … unusual!

The main body parts are in polyurethane resin are cleanly moulded, as are the metal cast wheels. Assembly is quite straightforward, and I found a minimum of cleaning up was required on the parts prior to assembly. As ever with resin models, I choose to use a coat of spray primer as the base for the final paint finish. Matador Models are at 6 Cliffe Road, Barton-on-Sea, New Milton, Hants BH25 7BP.



Forces of Valor 1:72 scale ready finished SdKfz 251 Ausf D with a 75mm PaK 40 antitank gun.

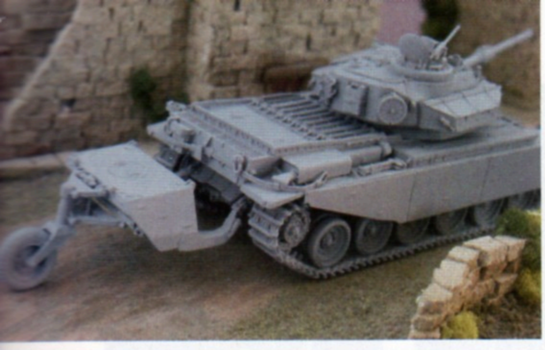


An overall Olive Drab US M3 Medium (Lee) in 1:72 scale comes as a finished item from Forces of Valor.

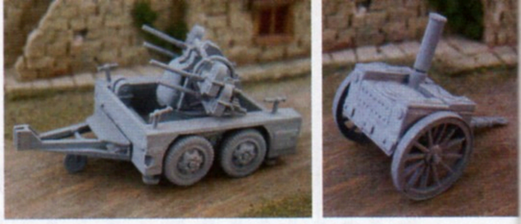
Forces of Valor

More this month from Forces of Valor and their range of ready made and painted vehicles, in 1:72 scale. Among these is a paired set, containing an *SdKfz 251 Ausf D*, along with a 75mm *PaK 40*. In addition to the half-track and the gun, there are a few figures and accessories in the package as well. Aimed largely at gamers, these ready made models feature with their own set of gaming rules, but actually the models are good enough for us to be looking at. Is it a coincidence that they've released this pairing at the same time as Dragon is doing a similar kit combination? When I first saw one of the promotional illustrations, the gun barrel on the *PaK* looked to be in semi-recoil position, just like the old Esci kit. The good news is don't let that fool you. In reality, the barrel is made to move on the slide, so while it can push back into the recoil position, it also slides fully forward to what I'll simply describe as 'normal'. Finished in a late war three-colour scheme, I rate this pairing as very nice indeed. The figures are OK; though might not be quite to the standards some modellers will be after. For most modellers though, it is the vehicles that they will be interested in, more so than the accessory figures.

There is a second version of the US M3 Medium (Lee), in the markings used in Tunisia, in a one-colour finish of Olive Drab, with a commander figure in the turret and the yellow star and banding around the turret. As a fully finished, ready assembled model this is pretty good. Actually I also rate all these ready made models highly as they can be bought not only by youngsters who may not have the skill (or be old enough for parents to trust with very sharp modelling knives) as well as those older enthusiasts who may no longer be so confident with eyesight and a steady painting hand to get the standard of results they really want. Of course, you also have the option to give these as presents to younger friends and family, and maybe having these as a starter, it will encourage them to want to have a go at their own. These new models should be in the shops already, and there is more to bring you next month as well. Thanks to Forces of Valor in Hong Kong.



Cromwell Models' 1:72 scale Centurion Mark V with mono trailer fuel tank.



ABOVE LEFT: US Quad .50cal AA mount on a Ben Hur trailer is a 1:76 scale 'wargames' model from Sgts Mess. ABOVE RIGHT: 'Goulash Kanone' – Sgts Mess make this 1:76 scale German mobile field kitchen kit.

who provided my examples. Forces of Valor are imported into the UK by Amerang Group, Commerce Way, Lancing Business Park, Lancing, West Sussex, BN15 8TA.
Tel: 01903 765496. Fax: 01903 765178.
sales@amerang-group.com

Cromwell Models

Turning back once more to Cromwell Models, news of their recent releases to their 1:72 scale Combat 72 range. Their newly commissioned models are moving to 1:72 scale, though the existing 1:76 scale range remains in production. Among these are a number of late war designs, which would have likely been in service by about 1946, along with some that did see use in the late war period. Also there's more in their series of modern Israeli armour, which are still a fascinating insight I think into the recent development of armoured vehicles.

The first one to mention this month is something they actually do in three different variants is the Puma (or *Pum'ah* I believe) that is a turret-less engineer vehicle based on the old Centurion tank chassis. There is a basic version of the vehicle in the range, then there is another with the extra mounting of the Carpet device on the back, and then the one we see here, a Puma with the Carpet device on the back and the *Noch'ri* mine clearance rollers on the front. The large box of the carpet device holds rockets that are launched forward to explosively clear mine fields.

Then the *Noch'ri* is an Israeli adaptation of the Soviet KST 4 mine rollers. The rollers themselves are the same, but the heavier supporting arms are the big difference. The finished model is a very interesting looking subject. The mine rollers took a bit of working out to get just how all the parts fit together, but I am pleased to say that Cromwell now have started to include some instruction sheets, which use photos of the completed model, from which you should be able to see where are the parts fit. This is a new development for them, and one that I know is planned to expand and cover other models in the range as well. It will, of course, take some time to get to everything but I believe this is a helpful development.

If you want more references, then there are some websites, such as Israeliweapons.com and IDF-in-scale.com that have many photos of the actual vehicles to help you still further. One of the little points I like about the design of these vehicles is the addition of the strong cable footholds. Anyone who has mounted a large armoured vehicle may be familiar with how awkward it is to get a good foothold and climb on board. Well, the same problem affects active crews, who may need to get on board as quickly as possible. It is very noticeable on all this modern Israeli kit just many of these additional footholds have been fitted both front and back. As for a paint finish? Well, refer to photos of the real thing for detail, including how many little pieces are painted red, but the basic Israeli sand-grey colour I find is well captured in one of the Lifecolor acrylic paints, Israeli Sand Grey 1982, ref US 035 (FS *36134). This paint is available via Cammett Limited, Unit 5, Green Field Industrial Estate, Forest road, Hay-on-Wye, HR3 5FA. Tel: 01497 822757.
cammettco@btinternet.com They have a Website at http://cammett.co.uk and my thanks to Robin for my example.

Sticking with the Centurion, how about a British army gun tank version of the Mark V, but with a mono trailer behind, for an extra fuel tank. Again I found some photos of the real thing, but this is another where Cromwell now has the photo sheet to guide you through how it all goes together. With the mono wheeled trailer dragging behind the tank, it is another, which instantly stands out as something different in any collection. Detail is excellent, and the quality of the resin castings is superb as ever. Finally, don't forget for many of you, that this is made in 1:72 scale, rather than 1:76 scale. As for the kits themselves, well naturally they are from Cromwell Model Productions, Units N 1 & 2, Glasgow North Trading Estate, 24 Craigmont Street, Glasgow, Scotland G20 9BT. Contact Tel: 0141-942-8596, comwellmodels@yahoo.co.uk and their Website www.cromwellmodels.com There will be more to come from Cromwell next time.

Sgts Mess

Recent news from Sgts Mess and their series of 1:76 scale metal wargames models. They started with some variants of the jeep and the US M3 half-track. Well, again there is another half-track variant, with the M16 now available, carrying the Quad .50cal AA mount in the back. Designed primarily for wargaming, things like the axles are basic, stout rods, which well support the weight of the model, and a construction which will help regular handling on a gaming table, let alone transport in boxes from one venue to another. Some clear assembly instructions are provided, and assembly is quite straightforward. In basic dimensions, it looks OK, though I haven't measured it up. At the same time we see a couple of other different pieces. Sticking with the US theme, we have a Ben Hur trailer, carrying the quad .50 AA mounting once again. Assembly is once again quite straightforward, and even the levelling jacks are provided so you can make it in towed or emplaced positions.

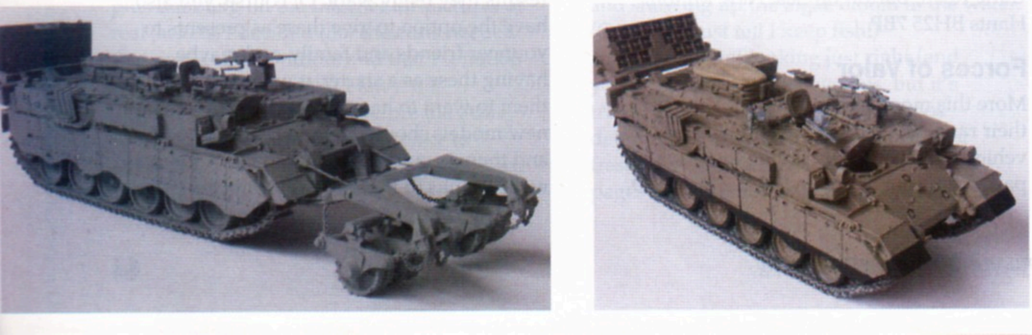
Another trailer, but this time it's German, and a Field Kitchen. Again, it's a simple enough assembly job, with the wooden wagon wheels, and a support if you want to have it unhitched, and set up ready for use. I understand this is just the first of a number of German army items they have plans for. As ever with metal and resin models, I always choose to give a coat of grey primer once they are assembled. Sgts Mess are found at The Granary, Burley Lane, Ashe, Basingstoke, Hants RG25 3AG, and they have a Website at www.sgtsmess.co.uk Tel: 01256 770025.

Dragon Models Ltd

Among some kits I have been building recently are a couple of the relatively recent releases from Dragon. Well, one release really, but two models. This is another of their double kits of the Hummer and an interesting/unusual pair of variants, as 'Psy Ops' teams use them. The basic models are pretty standard now, and anyone who has made the other Hummer double kits will be familiar with them. They have the later, more robust style of wing mirrors, the changes to the thick from grille and a clear plastic upper body shell, including a rear hatch that can be assembled open or closed. The tyres remain in the semi-rigid plastic that take a bit of effort to get onto the wheel hubs. The end result is not bad, though I wouldn't mind seeing some resin cast alternatives if they are available. On the roof, the new parts include a speaker system on one, and I have to be honest and say I am unsure what the other one is.

I was interested to see some photos of these types in one of the books about US vehicles in Iraq amidst the Concord book series. There you can kit some very useful guidance on what extent of weathering to apply to these vehicles in service. Another thing that delayed me a little was to get some more of the enamel paint from White Ensign models for the US Marine Sand colour, a paint that I find to be the best match I have seen for the current US vehicle colours in the desert. A smooth consistency of paint, and a good flat finish when it dries, this happens to be one of my favourites from the White Ensign paint range. The kit itself, the M1025 ASK w/ LRAS3 and the M1025 ASK 'Psy Ops' team is in the shops already. Dragon Models are imported into the UK by The Hobby Company Ltd., Garforth Place, Knoll Hill, Milton Keynes MK5 8PH. Tel: 01908 605686. Fax: 01908 605666.
sales@hobbyco.net enquiries@hobbyco.net

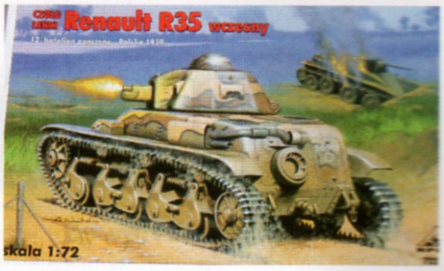
BELOW LEFT: Israeli Defence Force Puma with Nochri mine roller – a 1:72 scale Combat 72 kit from Cromwell Models The Noch'ri mine clearance rollers on the front are an Israeli adaptation of the Soviet KST 4 mine rollers. BELOW RIGHT: Cromwell Models 1:72 scale Puma – a turret-less IDF engineer vehicle is based on the British Centurion chassis. The large box of the carpet device on the rear holds rockets that are launched forward to explosively clear mine fields.



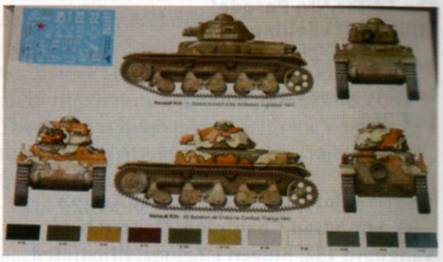
A brace of Hummers from Dragon Models in 1:72 scale - the M1025 ASK w/LRAS3 and the M1025 ASK 'Psy Ops' team vehicle with loudspeaker and .50 cal machine gun on top.

A recent release in the MMS 'Restricted' series featured their 1:76 scale Italian Fiat AS37 truck, but with a Breda 20mm AA gun in the back.

Polish manufacturer IBG have another 1:72 scale variant on their Bedford QL chassis – the QLT troop carrier – that was known to British troops as 'Drooper' because of the slight rearwards sag of its long body.



RPM's 1:72 scale Renault R35 – this injection moulded plastic kit has plain track problems. There isn't any detail on them!



Resicast

Just a short mention this month for Resicast, and mention of their T16 Carrier model in 1:35 scale. This later version of the British Carrier is delightful as ever, and adds to all those conversion/upgrade sets they do for the Tamiya kit. The T16 is a complete kit, and features option style wheels that include the later solid disc type. I plan to make this one up for a fuller feature in the months to come, but it is aimed to fit with a towed version of the 6-pdr antitank gun they have also released. If you are making this one, or others in their range of Carrier conversions, then I'd remind you about the two excellent books on the Universal Carrier which we mentioned last year. Resicast are at 517 Vieux Chemin de Binche, 7000 Mons, Belgium. See also their Website at www.resicast.com

RPM

News now of a recent 1:72 scale plastic kit release from RPM. To have a Renault R35 in plastic kit form, and in small scale, was something to look forward to. Sadly it is a mixed result. The good news is that they have included the basic details of engine, transmission, gun breeches and driver's position inside the hull. Painted up this will be visible if you select to model the hatches open. In the small size, I think these will give all you need for the impression of the interior in the finished model without adding more.

The sad bit I'm afraid is the tracks. In the box art they are beautifully illustrated, but in the kit itself, it almost appears that they were made into a mould only partially complete. Moulded in one piece, including some track sag on the upper run is good, and even the inner surface with the guide teeth is OK. Sadly it is the external surface of the track shoes which are simply smooth plastic all the way round, with no detail of the track shoes whatsoever! Being the outside surface, which is most visible, this is real shame and spoils the look of the whole thing. I have no idea why they have done this, nor if there are any plans to rectify it. With the potential cost of doing so, then maybe not, though the impact on lost sales if they don't is another question to consider. Meanwhile, I guess that the aftermarket, with resin or etched metal correction sets, will be the order of the day. I haven't seen any yet, but I don't think modellers will be happy with them as they are. I have found RPM kits to be pretty good over the years; this one has proved to be a disappointment, but only because of the tracks. If not for that, I think I would have raved about it, as I would have liked to. So, if you are happy to do something about the tracks, the hull with the extra interior details give this a lot of good modelling opportunities, not least of which are the interesting paint schemes which are an option on this early war French equipment. There is something like 14 different marking options included in the kit, which is great. For more details on colours and markings, check out the book on the R35 by Edition du Barbotin in France. My thanks to Pol Models for my example of the R35, which is released in a couple of different versions. Pol Models, at 64 Cumberland Road, London W3 6EY. Tel: 020 8992 3822.

IBG

Having got round to another of the IBG 1:72 scale Bedford QL kits, the QLT is now together. The cab and chassis is common to all their Bedford kits, so my previous comments about the cab remain the same. However, it still builds up very nicely overall, but be prepared for some quite small parts to be involved with the chassis and cab, and in this case the handles for the side doors on the body. The second sprue has the parts for the body, along with the tilt (top, with rolled sides) and eight supports, then the additional parts for the underside of the body and the two extensions for the chassis itself. These are necessary for the longer body yet they all fit together very well I found. The end result is a very nice model of the QL trooper, and includes the seating inside the rear body. Clearly this now cries out for you to add some seated British infantry figures, but you'll need to source these separately of course. Cromwell Models once did a nice resin set and SHQ have some in their range as well. Thanks to IBG of Poland for this example, and you can find them in the shops now.

MMS

A recent release in the MMS 'Restricted' series featured the Italian Fiat AS37 truck, but mounting a Breda 20mm AA gun in the back. Just for those who are uncertain, the 'restricted' series that MMS produce means just a different variant on a model that is in their standard range. The Fiat truck is available by itself, but this one is the same truck, with just the 20mm Breda cannon added to fit in the back. The truck itself makes up very well, and you can assemble it with super glue or solder. On this occasion I chose to go with super glue, simply as a change from my usual use of solder for metal models. I can say it went together very well, and is a solid construction. The one thing about this one to be prepared for is the upper cab and glazing. The top half of the cab is cast as a single piece, with the window glazing cast in solid. As part of the assembly, you need to carefully remove all the metal from the windows. This is not too bad, but you do need to be careful not to damage the frames themselves. I prefer to use a twist drill to make a number of holes just in from the edge and join these by cutting with a craft knife. Then use a craft knife and/or file to carefully remove the remainder, up to the window frames. I'd estimate that is the most time consuming part of the construction. The gun goes together well, and the end result is a very nice looking model. Equally, it is nice to see yet another Italian subject available on the market. MMS are at PO Box 626, Folkestone, Kent CT20 9AF.

Publications

Another book this month from French publisher, Editions du Barbotin, the third in their Century Track series, this is a first class little reference, with pretty much everything you might need on the topic of *Panzer Abwehr Kanone*, or *PaK* (antitank gun). Covering German antitank guns and tractors between 1933 – 45 this is a well-produced soft-back book, and as ever in their neat French/English dual language format. Liberally illustrated with photos throughout, and with six pages of colour profiles at the back of the book, each of their *PaK* guns is covered. From the early war period 3.7mm *PaK 36* it goes on through to the large 12.8cm *PaK 44*, of which some 50 were produced towards the end of the war. I mention that one in particular as I just might be bringing news of a model if this in 1:72 scale next month! An ideal little book to have as a basic reference source on your bookshelf, this Century Tracks series is developing nicely. Available from booksellers or via the publishers, Editions du Barbotin, 25 rue des Jardins, 91160 Ballainvilliers, France.■

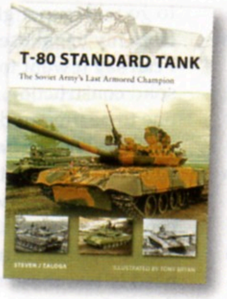
On Parade

Book and videos reviewed

● **Books and videos for review should be sent to:**
The Editor 'On Parade'
Military Modelling

PO Box 6017
Leighton Buzzard
LU7 2FA

T-80 Standard Tank, The Soviet Army's Last Armoured Champion, Osprey New Vanguard 152, Steven J Zaloga, illustrated by Tony Bryan. Osprey Publishing, Midland House, West Way, Botley, Oxford OX2 0PH. info@ospreypublishing.com **ISBN 978-1-84603-244-8 UK Price £9.99**


T-80 STANDARD TANK
The Soviet Army's Last Armoured Champion
STEVEN J ZALOGA
ILLUSTRATED BY TONY BRYAN

Following Soviet tank development is easier than it once was as original sources are now far more easily accessible, but it is still complicated by the practice of having more than one type in production and service with one better, but more expensive serving with a other cheaper if less capable vehicle. At the same time export-only versions have been produced which usually have less advanced features than those used by Soviet forces. Political influences have meant that at different times certain features have been pushed while different design groups and factories went in and out of favour. Add in language differences and there is potential for confusion.

T-80 is a development of the T-64 series and is contemporary with NATO's Challenger, Leopard 2 and Abrams. Intended as the better vehicle it was produced and served alongside the T-72. While it shares some features with T-72 such as general compact design and the use of a two-man turret crew with an auto-loader, it was designed to use a turbine engine. This offers plenty of power in a small and light package, but also uses a lot of fuel and needs a lot of clean filtered air which required extra space for filters and external fuel drums which resulted in the T-80 being nicknamed 'Mickey Mouse' by some Western tankers.

Initially the T-80 was a T-64 with a new engine, but it has been developed with improved fire control, the use of gun-launched missiles, advanced composite armour, additional reactive armour and latterly active protection against antitank missiles. This has resulted in various types such as the T-80B, T-80BV, and T-80U while a change to a diesel power pack produced the T-80UD. When the Soviet Union collapsed some T-80 series tanks were produced in the Ukraine as the T-84, while the design was updated to include thermal sights to make it more competitive on the export market. Although offered to various countries it has not had great success though there have been sales to Cyprus and Pakistan as well as use in South Korea, small batches have been sold elsewhere including some which ended up in Western intelligence hands. Other upgrades have been designed and await use either in new tanks or for refurbishment of existing stocks. Alongside the various battle tanks there has been a dedicated recovery vehicle, some artillery and missile systems have used T-80 series parts as well.

Mil Mod regular Steve Zaloga follows the development and use of this series is his usual style here, offering insights into many projects which fed into the T-80 or became dead ends such as the T-74 with its external gun and crew-in-hull configuration. At times the story becomes complicated and reading the text may be best done slowly. As usual with the New Vanguard series there are plenty of illustrations in the form of mostly colour photos with a few black and white ones as well showing tanks, ammunition and inside a reactive armour block. Line drawings include one from the technical manual showing the auto-loader, colour plates show vehicles from different generations in different hands while the two-page cutaway offers a view into this tank.

Filling a gap in the history of Soviet tank design, this is well up to the standard of both author and series. It will appeal to anyone interested in modern battle tanks, as the T-80 series is now a major part of the Russian army and will be for some time to come.

Peter Brown

A7V Mephisto, Gregory Czechura and Jeff Hopkins-Weise. Queensland Museum Guide. Price UK £6.50 + £2.75 p&p

A7V MEPHISTO
A QUEENSLAND MUSEUM GUIDE

Recently a book appeared on my desk that, at first glance, didn't register as something of importance. How wrong I was! It is only a small, 68-page booklet retailing at just £6.50, and, if you are interested in First World War tanks, this is a must. Titled *A7V Mephisto*, it is all about the only surviving example of the Kaiser's army's answer to the British tanks that caused so much consternation on the battlefield when they first appeared. After the Armistice, three examples were known to have been captured, one in the UK that was scrapped in 1920 after being exhibited at a temporary show at Crystal Palace, another went to the USA and was scrapped in 1942, and finally 'Mephisto' that ended up in Australia at the Melbourne Museum.

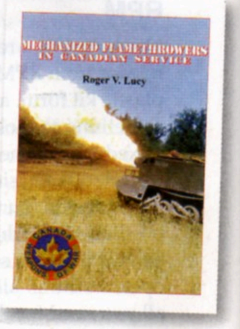
Why Australia, well, it was a 12-man detachment of the 26th Battalion, mostly Queenslanders, who crept into 'No Man's Land' on the July night in 1918 and, at great risk (they all subsequently suffered from exposure to heavy mustard gas shelling by the Germans to prevent the tank being carried off) recovered the tank. The subsequent story of how Mephisto's was transported to Australia is a saga worth hearing, or reading.

Anyway, to return to the booklet, it contains in this small format just about everything you would want to know about this fascinating early tank, its genesis, battle history, Yes, even about the crew, its capture and recovery and, of course, how it ended up in Australia, In addition, it is profusely illustrated with contemporary photographs and diagrams, in both B/W and colour. Written by Gregory Czechura and Jeff Hopkins-Weise for the Melbourne Museum, this is both a super read, as it covers just about everything about the tank, and a worthy addition to a library, even in this small format.

Well recommended, it is available, plus postage, from the Aviation & Military Book Centre, PO Box 4413, Atherstone, Warwickshire, CV9 9AS.
www.militarybookcentre.com

Charles Davis

Mechanized Flamethrowers in Canadian Service, Roger V. Lucy. Canada's Weapons of War Series WOW022. Service Publications, PO Box 33071, Ottawa, Ontario K2C 3Y9, Canada www.servicepub.com **ISBN 978-1-894581-49-6. Price CDN$9.95**



Many modellers will be familiar with the Carrier-borne Wasp flamethrowers and know that the Canadians developed them, but the full details of this and the other vehicle-mounted types may be less well known. All are covered in this new title in this well-established series. It starts with the first designs of the Petroleum Warfare Directorate and car manufacturer Lagonda leading to the Ronson series, ordered in quantity, but not used by Commonwealth forces though some were fitted to US Marine LVTs in the Pacific. Development continued with the all-Canadian Hornet, Barracuda and Rattlesnake before the Wasp was finalized. As well as the projectors, various types of fuel are described, as are organization and tactics to use Wasps in large numbers.

However, these ideas were superseded and Wasps became standard infantry equipment. Use in action in Canadian hands is followed, as are the flame equipments fitted to turret-less Ram tanks known eventually as Badger. This was continued post-war using late M4A2 Shermans while further development led to the Iroquois for Carriers and Cree intended for Centurion tanks and the planned Bobcat APC. However by the early 1960s interest in all types had faded.

At least the various designs are covered here, with a well-written and readable text backed up with black and white photos of the many types and a 1:35 scale half-tone plan of the most widely used Wasp IIc on a Universal Carrier. All will be useful for modellers planning to build Wasps, Badgers or others as well as to those interested in flame warfare.

Peter Brown

Large PHOTO FILE
Light Tank Carro Leggero L3-33/35/38
and L6/Semovente L40
© Auriga Publishing International

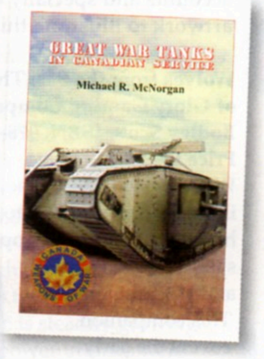
Light Tank L3-33/35/38 and L6/Semovente L40. Alessandro Bruschi and Daniele Gugliemi. Auriga Publishing International srl, Via Bressanone 17/1, 16154 Genova, Italy. info@aurigapublishing.it ISBN 88-88711-31-7. Price €18.00

Latest in Auriga's 'Large Photo File' this is an excellent photographic study on the Italian L3 tankette and L6 light tank and Semovente. The text is dual Italian/English throughout as are all captions that widen its appeal to non-Italian speakers. Photographic content is very good and there are lots of drawings, from user handbooks and specially produced for this book, plus some scale drawings that modellers will find very useful.

A bonus is the six pages of colour profiles illustrating some very interesting camouflage schemes and the markings used. Colour photographs of preserved vehicles add much interest to the study. Presented in 'walk round' format with lots of back up photos of different fittings. Aimed at modellers it scores in every department and is highly recommended.

Ken Jones

Great War Tanks in Canadian Service, Michael R. McNorgan. Canada's Weapons of War Series WOW023. Service Publications, PO Box 33071, Ottawa, Ontario K2C 3Y9, Canada www.servicepub.com ISBN 978-1-894581-51-6. Price CDN$9.95



Although Canada raised its and, indeed, the world's first armoured unit in 1914 with several armoured trucks mounting machine guns, and Canadian troops were among those supported by tanks as part of the first tank attack in 1916, it was not until 1918 that the first Canadian tank unit was created. The 1st Canadian Tank Battalion was raised from university students; it was soon up to full strength and sailed for England to train. This training was at Bovington and Lulworth in Dorset, already established as a major AFV centre. Courses in driving, maintenance and gunnery followed British practice along with learning other less obvious skills such as sending messages by carrier pigeon. All this was to ready the 'Cantanks' to take part in the planned 1919 campaign, along with a 2nd Battalion formed from Royal Canadian Mounted Police 'Mounties' and artillerymen plus a third intended to be French-Canadian. Events overtook all three units, however, with the Armistice in November 1918, none of them operated a tank in anger though they did suffer several casualties mostly from 2nd Battalion due to influenza caught on their voyage to England.

Despite their lack of opportunity they were the first Canadian tank units and this book gives us a flavour of life in the 1st Battalion. Accounts from several men who trained in tanks make for interesting and even amusing reading, illustrated with a 1:35th scale plan of the Mark V tank they would have used and a collection of period photos. Some show the first tanks in action including what looks like the first ever published shot of a Mark I missing one tail wheel, the majority are previously unpublished as they come from the private album of one of the officers of 1st Battalion. Although accounts cover Mark V the photos mainly show Mark IVs with a few of Mark V*, V 'Tadpole', Mark VIII, Whippet and FT17 as well as others of tanks in action in France.

As an account of the first albeit short-lived Canadian tank units and of life in tanks during the Great War, this is a useful addition to this series, well up to their established standards.

Peter Brown

Sterling T26 Discovered, researched, illustrated and edited by Tony Gibbs. JEAPJACK, 6 Tarleton Gardens, Forest Hill, London SE23 3XN. tony.gibbs2@me.com http://web.me.com/tony.gibbs2 (no ISBN) Price £30 + p&p

This is a privately published work by Tony Gibbs and subtitled -Analysis of Steve Hodges' amazing 8 x 8 12 ton High Mobility Prototype – Hundreds of never previously published photos and drawings. The Sterling T26 was the replacement for the M26 'Dragon Wagon' and Steve Hodges was the US Army officer involved with the project.

STERLING T26
Discovered
Analysis of Steve Hodges' amazing
8x8 12 ton high mobility prototype
Hundreds of never previously published photos and drawings
Researched illustrated and edited by TONY GIBBS

Before his death, Steve worked with Tony to produce this very detailed limited edition book that has been many years in the making, on the T26 tank transporter tractor concept from inception to production. Tony's work for the book was thoroughly examined by Steve and totally endorsed with his seal of approval as the definitive study on the type. He says so in his foreword to the book, which he wrote in 2002 before his death.

The 224 pages in the book are absolutely packed with photographs and drawings and confirm the legend on the back cover – 'Everything you ever wanted to know about the T26'. It all began with the author's interest in making a model of the T26 and his first port of call was Bart Vanderveen's *Observers Fighting Vehicle Directory*, from which things simply blossomed.

The book takes a logical course from the very beginnings and from the immediate post war years in America and all the detailed information gleaned from research is presented. The seven chapters detailing the vehicle's development run from before the Second World War and after with chapters on a full technical description and the vehicle examined in detail, covering all parts of the bodywork and automotive parts, giving an in-depth nuts and bolts presentation. The study is interspersed with the personal touches that involve the Hodges family and their part in the story.

The author has provided over 50 3D CAD drawings he produced as an aid to modelling the T26 along with more than 70 other drawings, 1:35 scale drawings and illustrations and these form the strongest and most interesting part of the book for modellers.

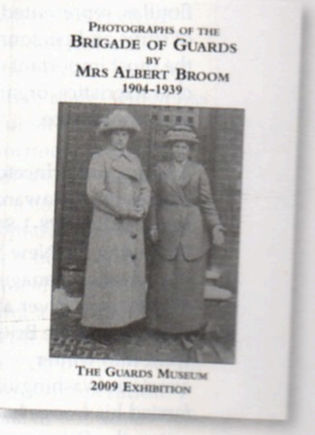
As a single vehicle study, and bearing in mind that it is privately published, this is a monumental work and a first rate publication. Such works are not easy to achieve, but Tony Gibbs has done a splendid job. If American wheeled vehicles are your interest – you must have this on your library shelf and bear in mind that it is a limited edition as far as worldwide supplies are concerned.

Full details on ordering on line can be found at http://web.me.com/tony.gibbs2/Sterling_T26_/Buy_a_book.html

Ken Jones

Photographs of the Brigade of Guards by Mrs Albert Broom 1904-1939. The Guards Museum 2009 Exhibition. The Guards Museum, Wellington Barracks, Birdcage Walk, London SW1E 6HQ. Price £5 + £1 p&p UK only

Mrs Albert Broom photographed members of the five regiments of British foot guards and nearly all the events they were involved with in Britain, totally endorsed by the reigning sovereigns during the 35 years she actively pursued her craft. The Guards Museum in London is running an exhibition of Mrs Broom's work throughout this year and has published this little booklet with a taster of what can be expected. It contains 25 of Mrs Broom's photographs over its 16 pages with another four on the card covers, including a picture of the photographer herself on the front.



The photographs range from guardsmen in single studies, portraits and groups to events and public duties. A wonderful collection for a fiver! You couldn't buy copies of the originals for that.

Ken Jones

German
Sturmartillerie
at War Vol.2

German Sturmartillerie at War Vol.2, Frank V. De Sisto. Concord Publications Co., Kong Nam Industrial Building, 10/F, B1, 603-609 Castle Peak Road, Tsuen Wan, New Territories, Hong Kong. www.concord-publications.com ISBN 962-361-653-8. Price £14.99

Essentially a 72-page picture book absolutely crammed with photographs of the title subject all with informed and extended captions. Some have been seen before, but the majority will be new to most. In addition there's eight pages of colour side view profiles, two per page, with ideas for anyone modelling German assault guns. It is No.7030 in Concord's Armor At War Series and forms essential photo reference for military vehicle modellers' libraries. Recommended.

Ken Jones

Road to Destruction, Operation Blue and the Battle of Stalingrad 1942-43, A Photographic History, Ian Baxter. Helion and Company Ltd., 26 Willow Road, Solihull, West Midlands B91 1UE. publishing@helion.co.uk www.helion.co.uk ISBN 978-1-906033-15-6. Price £25

The German offensive against Stalingrad was one of the bloodiest campaigns fought during the Second World War with total casualties passing the million mark. Hitler became obsessed with Stalingrad and wanted it – whatever the cost, but as history records he was to be disappointed and his 6th Army under General Paulus was defeated by the Soviets.

The book is divided into four parts – the prelude, *Operation Blue*, the Siege and the inevitable fall of Stalingrad. It is profusely illustrated throughout, has a lucid text, which combine to make this an ideal 'first look' study of the Siege of Stalingrad for anyone delving into the Eastern battles of the Second World War for the first time. Our review sample came from Casemate www.casematepublishing.co.uk

Ken Jones

Road to Destruction
Ian Baxter
OPERATION BLUE AND THE BATTLE OF STALINGRAD 1942–43
A PHOTOGRAPHIC HISTORY

Stuart Asquith's round up of some recent releases from Osprey. Take a look at Osprey on line at www.ospreypublishing.com
All Osprey titles are available from Osprey Direct, PO Box 140, Wellingborough, Northamptonshire NN8 2FA.
Tel: 01933 443863, Fax: 01933 443849.
E-mail: info@ospreydirect.co.uk

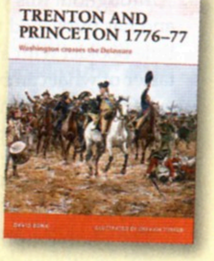
Kriegsmarine Coastal Forces (New Vanguard 151), Gordon Williamson. ISBN: 978-1-84603-331-5. Price £9.99

While the 'pocket battleships' and U-boats attract most of the attention paid to the German navy of the Second World War, the coastal and support branches with their minesweepers, torpedo boats, patrol and escort craft, fleet auxiliary supply ships, as well as depot tenders for U-boats and S-boat flotillas, represented a far greater number of ships and personnel. This book describes the most important of such vessels, their characteristics, organisation, deployment and war service.

KRIEGSMARINE COASTAL FORCES

Trenton and Princeton 1776-77: Washington crosses the Delaware (Campaign 203), David Bonk. ISBN: 978-1-84603-350-6. Price £14.99

Following the New York campaign, George Washington managed to escape across the *Delaware* River at Trenton and the British went into winter quarters. Washington ferried his troops back across the *Delaware* on the night of Christmas Day 1776 and attacked the Hessian garrison at Trenton. He then managed to hold off a British response at Assunpink Creek a week later, before marching on Princeton and inflicting defeat on a smaller British force.

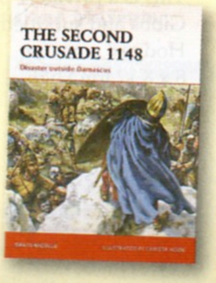

TRENTON AND PRINCETON 1776–77
Washington crosses the Delaware

The Bay of Pigs: Cuba 1961 (Elite 166), Alejandro de Quesada. ISBN: 978-1-84603-323-0. Price £11.99

The landings by the Cuban exile Assault Brigade 2506 at the Bay of Pigs on 17th April 1961 led to three days of savage, but unequal combat. Despite stubborn resistance to Castro's troops and tanks and heroic sorties by Cuban and American pilots, the Brigade was strangled for lack of firepower and ammunition. The Brigade's story is illustrated here with rare photographs from Brigade veterans and colour plates of the uniforms of both sides.

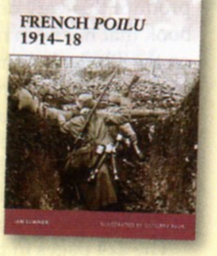
The Second Crusade 1148: Disaster outside Damascus (Campaign 204), David Bonk. ISBN: 978-1-84603-354-4. Price £14.99

The Second Crusade focused upon the strategically ambitious attempt by a Crusader army to take Damascus. At the time, the city was the capital of an Islamic state that was friendly towards the neighbouring Crusader lands and saw them as an ally against rival Islamic nations. The Crusaders' defeat at the siege of Damascus 1148, coming as it did against a background of successes, came as a huge shock to Christian self-confidence, whilst also reviving that of the Islamic states.



French Poilu 1914-18 (Warrior 134), Ian Summer. ISBN: 978-1-84603-332-2. Price £11.99

During the Great War the French army, plagued by indiscipline, mutinies and desertion, fought in a state of disarray. The ordinary Frenchmen called upon to defend their country – the *poilu* – were disrespected and often demoralized, but developed into a force capable of withstanding German onslaughts. This book tells their story.



North Vietnamese Army Soldier 1958-75 (Warrior 135) by Gordon Rottman. ISBN: 978-1-84603-371-1. Price £11.99.

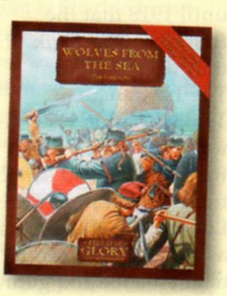
Often mistaken for the locally raised Viet Cong, the North Vietnamese army was an entirely different force, conducting large-scale operations in a conventional war. The author follows the life of these highly motivated infantrymen from 1958 onwards, covering conscription and induction through training to combat experiences.

Russian Battleship vs Japanese Battleship: Yellow Sea 1904-05 (Duel 15) by Robert Forczyk. ISBN: 978-1-84603-330-8. Price £12.99.

Not only was the Russo-Japanese War a key moment in world history, but it also saw the world's only clash between modern battleships, before the advent of aircraft and submarines would change the naval balance worldwide. In this book, the key elements of firepower, armour, tactics and communications for each side are explained, accompanied by first-hand accounts and specially commissioned artwork to illustrate this great naval duel.

Wolves from the Sea: The Dark Ages (Field of Glory Gaming Companion) by Richard Bodley Scott. ISBN: 978-1-84603-479-4. Price £12.99.

Wolves from the Sea is the latest well illustrated companion to *Field of Glory*, the historical figure table top war gaming rules system for the ancient and medieval periods. This companion covers the early medieval period in western and northern Europe, commonly known as the Dark Ages, from AD 496 - 1070. There are a number of army lists for such forces as the Merovingian Franks, middle Anglo-Saxon, early Navarrese and early Scots. It should be noted that a copy of *Field of Glory* is needed to play the rules.



Atten-Shun!

The Product Review Column

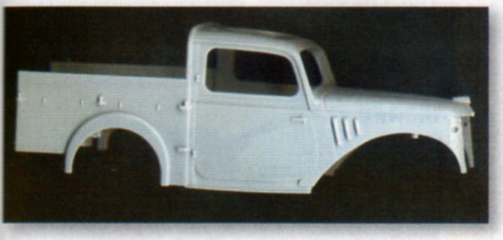
- **The Editor welcomes product samples for review. Unless a prior arrangement has been made with the Editor review samples WILL NOT be returned.**

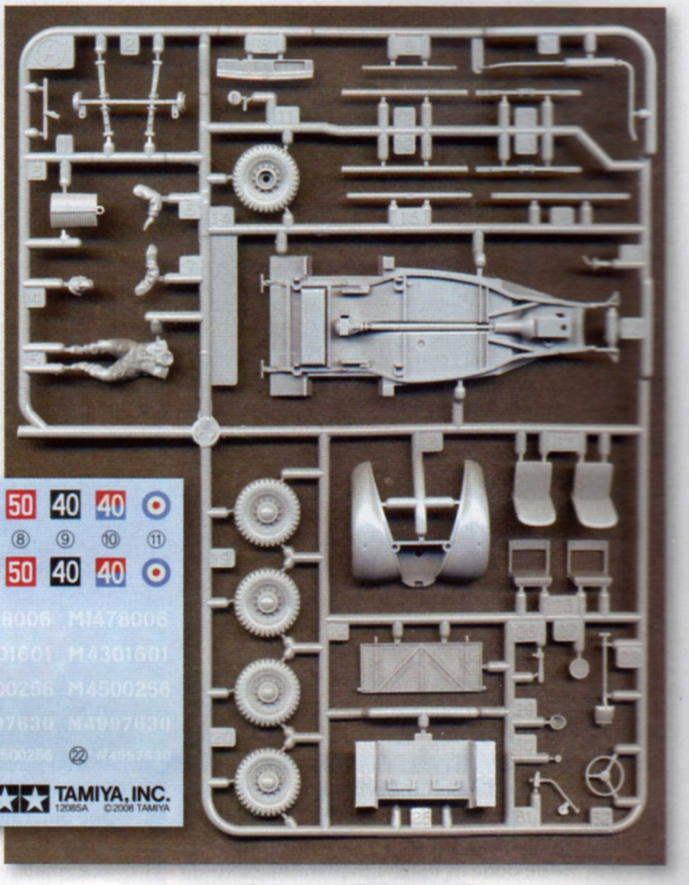
All product samples intended for review in the 'Atten-Shun!' column should be sent to:

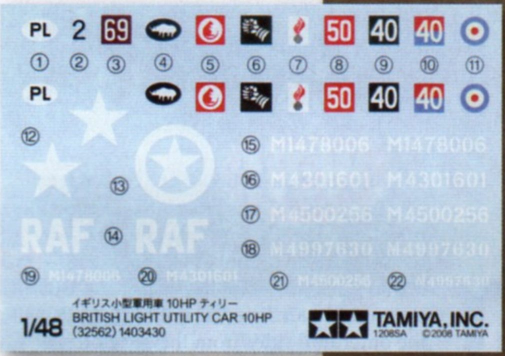
The Editor
'Atten-Shun!'
Military Modelling
PO Box 6017
Leighton Buzzard
LU7 2FA

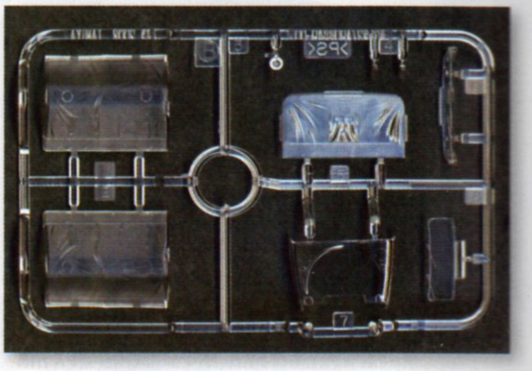
- **Tel/fax: 01525 370389**
- **E-mail: ken.jones@magicalia.com**

1/48
BRITISH LIGHT UTILITY CAR 10HP
TAMIYA









Tamiya

I have been eagerly awaiting the arrival of this kit since I was sent photographs of the completed examples at the Tokyo Hobby Show for Military Modelling magazine, ("Atten-shun!" Vol.38 No.15 page 67) and I wasn't disappointed when I opened the box. These kits are designed to fit into Tamiya's 1:48 scale series of aircraft models as a ground support vehicle for display with the appropriate aircraft type, or as part of a diorama, and this range is steadily growing.

The British 10 horsepower utilities were civilian designs adapted for military service and could be found in all three branches of Britain's wartime armed services. The 'tilly' was a small, but very useful vehicle suited to a multitude of light tasks. The British motor manufacturers produced these utilities and this 10 hp version was made by the former Austin, Hillman, Standard and Morris motor works and although supplied to a single military specification, all are visibly different where the manufacturer has retained 'house style' for the bonnet (hood) and grille and other areas. The subject of Tamiya's kit is an Austin, but this is not stated on the box top most likely because of contractual restrictions seemingly carefully observed by Tamiya for their kits.

Moulded in light grey plastic the kit (Item No.32562) does not have the clunky diecast metal chassis/underpan, which hopefully has gone for good, and in its place is a finely moulded chassis floor detailed on the underside with engine sump, propeller shaft betwixt gearbox bell housing and the rear axle differential housing. There's even the fuel tank between the rear chassis members. The rear springs, exhaust pipe and silencer, front springs and unpowered axle, tie rod and front and rear bumpers are separate additions. Quite a bit for a quarter scale model and most of it will be out of sight when the 'tilly' is on its wheels.

There's only one sprue of parts for everything that needs assembly, with the cab and rear body as a one-piece moulding. The cab glazing and tilt (cargo cover) come on a clear plastic sprue – but the tilt is unfortunately a two-part affair that meets in the middle, whereas a top and two sides would have eradicated the production of a prominent centre joint requiring treatment. Inside are driver's and front passenger's seats and there are two more to go in the rear on the floor of the rear body. Dashboard and steering wheel complete the interior. However, there is no detail on the inside of the cab doors, but with the glazing in place, and an enclosed cab it's not really visible. A seated driver figure wearing British battledress and a beret is supplied.

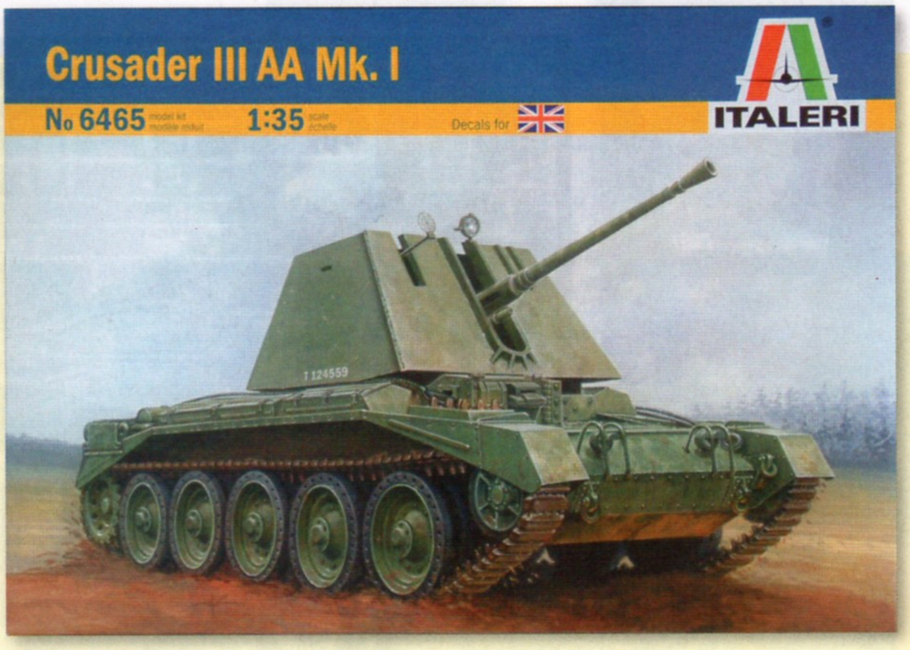
The decal sheet provides Allied stars for the cab doors and one larger, ringed star for the bonnet top. Six WD M-prefixed numbers are provided, along with RAF legends for the doors and red white and blue cockades for the wing. But no RAF prefixed serials are provided. (The RAF was a big operator of the vehicle.) A black figure 2 goes on the bridge plate, which has to be painted yellow. Polish forces 'PL' on white ovals and an assortment of British unit insignia and arm of service markings complete the set. Quite a comprehensive selection and choice of markings for a kit of its size, though there's nothing for the 'Senior Service' – the Royal Navy! Though sourcing one and putting a suitable 'RN' on the doors isn't difficult. Basic painting details are also provided on the instruction sheet for different theatres of operation.

Now, all we need is one in 1:35 scale – how about it Tamiya? That one would find a wider home base amongst modellers. Tamiya models are imported into the UK by The Hobby Company Ltd., Garforth Place, Knoll Hill, Milton Keynes MK5 8PH. Tel: 01908 605686. Fax: 01908 605666. sales@hobbyco.net enquiries@hobbyco.net

Ken Jones

Price: £14.99

Tamiya, 3-7 Ondawara, Shizuoka City, Japan.
http://www.tamiya.com/english/e-home.htm


Crusader III AA Mk. I
No 6465 model kit modèle réduit
1:35 scale échelle
Decals for
ITALERI
T 124559

Italeri

One of several solutions to provide British armoured units with antiaircraft protection was mounting a 40mm Bofors gun on a Crusader chassis. This was based on the standard mounting with power-driven elevation and traverse in a four-sided thinly-armoured turret. First usual trials were done in 1942 with plans made to build 250 vehicles, however, even then this was thought to be an interim measure with twin 20mm guns being the preferred solution. Further trials found that the turret structure was not rigid when travelling cross-country, but despite this, by the end of 1943 records show 218 vehicles had been converted though all required modification and a full user manual for the 'Crusader III A.A.I' was produced. By then the 20mm armed Mark II and improved Mark III were being produced for RAC use. Some 50 of the Mark I were to be allocated to the Royal Artillery, however a new design did away with the turret and instead used the same mounting as in the towed gun with its standard front shield, some at least had simple side pieces for added protection. In this form they were used on and after the D Day landings, before being replaced with more conventional guns though some ended up in French service post-war as 'Crusader DCA'.

What this new Italeri kit (kit no. 6465) depicts is the Mark I in its original production form, not the version that saw action. It is a mix of existing parts from earlier Crusader kits, which have been available in various boxes, first as Mark III kit no.219 back in 1976, then later as Mark I and II tanks and most recently the AA Mark III released in late 2005, with new parts for the Bofors gun and turret.

Sprue 'A' is common to all this series and gives us wheels and suspension items plus others, parts that form the base of the turret ring are marked not for use. Sprue 'B' has parts for the hull top, floor, front and rear, it still gives the rear top part of the turret from the original Mark III kit and the turret bin from the gun tanks which can find its way into the spares box, but in this release also includes various boxes to go inside the turret. Sprue 'C' comes from the Crusader III AA Mark III kit no. 6444, that kit's 20mm guns, turret interior parts and extra stowage bin are listed as not for use. Using the outer hull sides from this version is a good move as it has better detail including the small fittings for their removal.

Other items such as stowage bins and auxiliary fuel tank are common to other Crusader releases. Final sprue 'D' is a combination of part of a sprue originally from kit no 5602 Elco 80ft Torpedo Boat PT-596' including some items from the mounting for that kit, this was also part of kit no. 6458 'Bofors 40mm Anti Aircraft Gun', but here comes with new parts providing the turret base and sides for the AA tank. A set of soft-plastic tracks including spares, which is the same as all previous Crusaders completes the parts.

With a mix of old and new parts, some long-standing problems have been repeated such as the 'step' on the front mudguards and lack of an exhaust fishtail between the louvres on the rear of the hull. Construction follows a similar sequence to earlier kits, starting with the hull the only new feature is the addition of a gun barrel support on the engine deck until reaching the gun and turret. The basic gun and top carriage is fitted to a square base with a recessed 'basket' including representations of the elevation and traversing motors moulded into it. These will not be easily visible once the gun is in place. Note also that the Bofors depicted is an American version, British guns differed in areas such as the sights so some changes may need to be made. The four sides of the turret each have various details to be fitted inside and / or out, it is recommended that these are assembled together on a flat surface and then fitted to the base.

No crew figures are provided, and only one colour and markings option. This is for vehicle T43776, which was photographed in March 1943, the colour would have been SCC2 brown and not the 'dark green' listed. For some reason the box art shows a different vehicle!

As a choice of subject it is unusual, however, its appeal could be limited as this version did not see action. Anyone desiring all variations of Crusader may still want one, and with some research it could be converted as one of the vehicles used on D Day as it provides the basic chassis and gun without buying separate kits.

Italeri kits are imported into the UK by The Hobby Company Ltd., Garforth Place, Knoll Hill, Milton Keynes MK5 8PH.
Tel: 01908 605686. Fax: 01908 605666.
sales@hobbyco.net
enquiries@hobbyco.net

Peter Brown

Price £25
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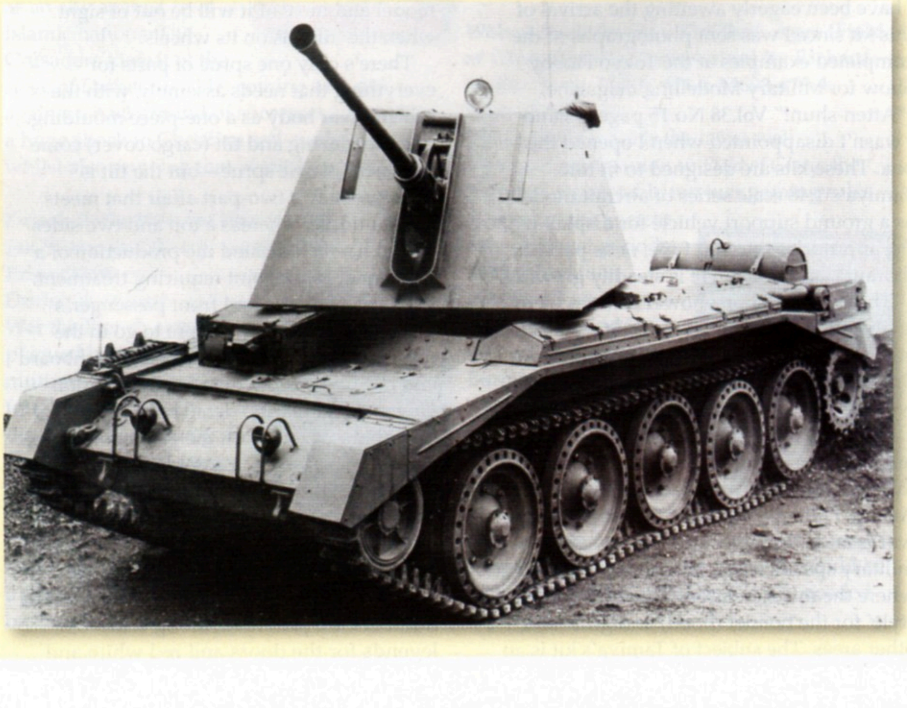
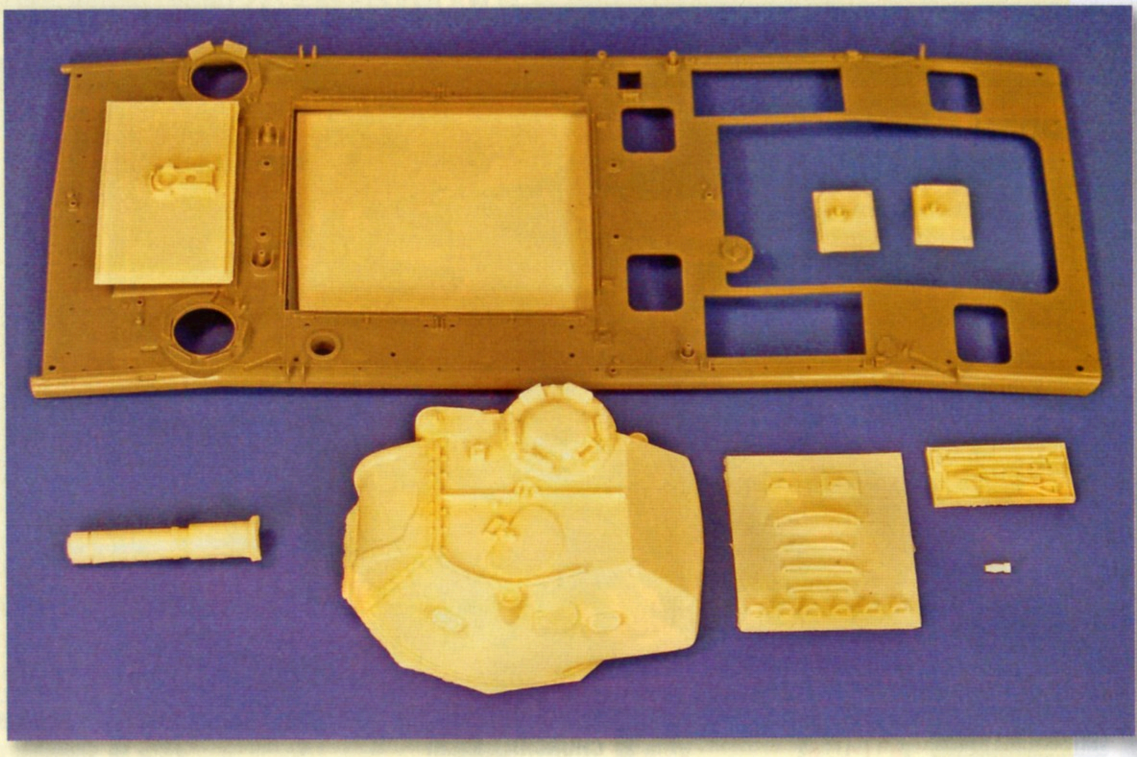


Masterpiece Models



During the Second World War, the Army and Marine Corps jointly developed the armoured versions of their LVT tracked amphibians, finally resulting in the LVT(A)-4 which had the complete turret of the M8 75mm GMC mounted on it for close support to beach landing teams. This was later modified with a roof, more armour protection and add-ons to increase sea-keeping qualities as the LVT(A)-5 that served in Korea.

After the war, the Marine Corps drove ahead with its own ideas of LVT designs, eventually adopting the LVTP-5, which could carry up to 35 fully equipped Marines or a platoon. Ten of these vehicles could transport a Marine infantry battalion, and other support variants also were designed. One of the more interesting was the LVTH-6, a unique vehicle which basically used the 105mm M49 howitzer shared with the US Army's M52 105mm HMC. But the LVTH-6 could carry up to 151 rounds of ammunition onboard – about 100 if it was swimming in for a landing – and thus provided instant fire support. Later, due to sea keeping problems and other drawbacks to the first versions of the LVTP-5 family, an 'A1' variant of the entire family was created with a taller exhaust tower on the rear of the engine deck to prevent flooding and also exhaust feedback into the cargo compartment. Around 210 of these vehicles were built, but only 18 ever saw combat duty with the USMC. A three section company was sent to Vietnam where it was designated the 1st Armored Amphibian Company and used for direct support to Marine units by sections of six weapons each. It served honourably and effectively, and was the last Marine armoured unit withdrawn in 1972. Other LVTH-6s serve with the ROC Marines to the present time.

AFV Club came out with a really nice kit of the LVTP-5A1 several years back, but while the exterior was super, there was not one whit of interior with a model of a vehicle essentially the size of a moving barn with a cavernous front hatch. AFV Club's parent company, Hobbyfan Trading, offered a complete resin interior for the model – but it retailed for USD $115 and was that of an ROC Marine Corps variant, which was quite different from the Vietnam-era USMC version. As a result, many of these kits went up on shelves to sit and wait for something – anything! – To happen.

While AFV Club has promised the LVTH-6 variant for some time, in the interim Masterpiece Models has answered the mail and come out with a new resin conversion kit for this vehicle. It essentially consists of the turret, a hull adapter plate, a new front deck plate with travel lock, a barrel, two new rear hatches, and 14 fittings and handrails to fit on the new turret.

Masterpiece Models provides very nicely detailed directions – and with the level of detail in their directions and the simplicity of the kit, if you have an LVTP-5 kit and wanted to build it closed up, this kit offers you an 'alibi' to finally build the model. It is also a perfect first conversion kit for those who want to branch out, as other than one step it is literally a 'drop-fit' conversion.

Step one is to clean up the turret base, which is moulded with straight edges to the overflow so it will provide a complete pour. Next, using a sharp X-Acto knife or other cutting tool, the LVTP-5's machine gun cupola base on the front deck of the hull roof must be removed. The new resin part is then added and filled in flush with putty (the deck on the original is one piece). The turret base is added to the centre of the hull, and the new hatches just behind it. A separate spring mount is then added to the left side of the turret, and another on the right (the review sample was missing one of the two whip bases.) Then the tool rack is cemented to the rear of the turret to the flat, sloped plate.

The main gun and conical machine gun barrel hider/guard are then cemented to the front of the turret face; note that you can cement them in any position relative to elevation desired but the centre axis of the hider/guard must be even with the centre axis of the howitzer. The howitzer has a concave rear surface that fits perfectly with the face of the turret rotor. (Note that the review sample was also missing the cone-shaped hider/guard.)

Some additional gun guard/stops must be added from 0.030in (0.75mm) styrene rod; templates are provided for matching the shapes and sizes. Where kit parts are used and repositioned, the directions point these out as well.

The turret only sits on the adapter plate; there is no pin or race to fit it, but with some mensuration and a good drill a pin could be fashioned from 1/4in styrene tubing that would suffice as the turret sits flush on the surface. Getting the exact spot to drill will take some time, though! A five-view plan in 1:72 scale is included along with the templates.

Some parts are not provided (since this was a 'heads-up' review sample I don't worry about the missing antenna mount or flash hider/guard) such as the armoured cover over the APU exhaust on the right side of the hull just behind the turret. This is visible on the plans and in actual photos, but not on the demo model nor present in the kit. Also the commander's machine gun mount is not described, even though one has been added in the demo photos.

No finishing directions are provided, but the few photos I have of LVTH-6A1s in Vietnam show them in USMC Bronze Green with yellow markings, specifically the buoyancy marks ('asterisks') at the front and rear of the hull and the serials. The only one I have is USMC 101558.

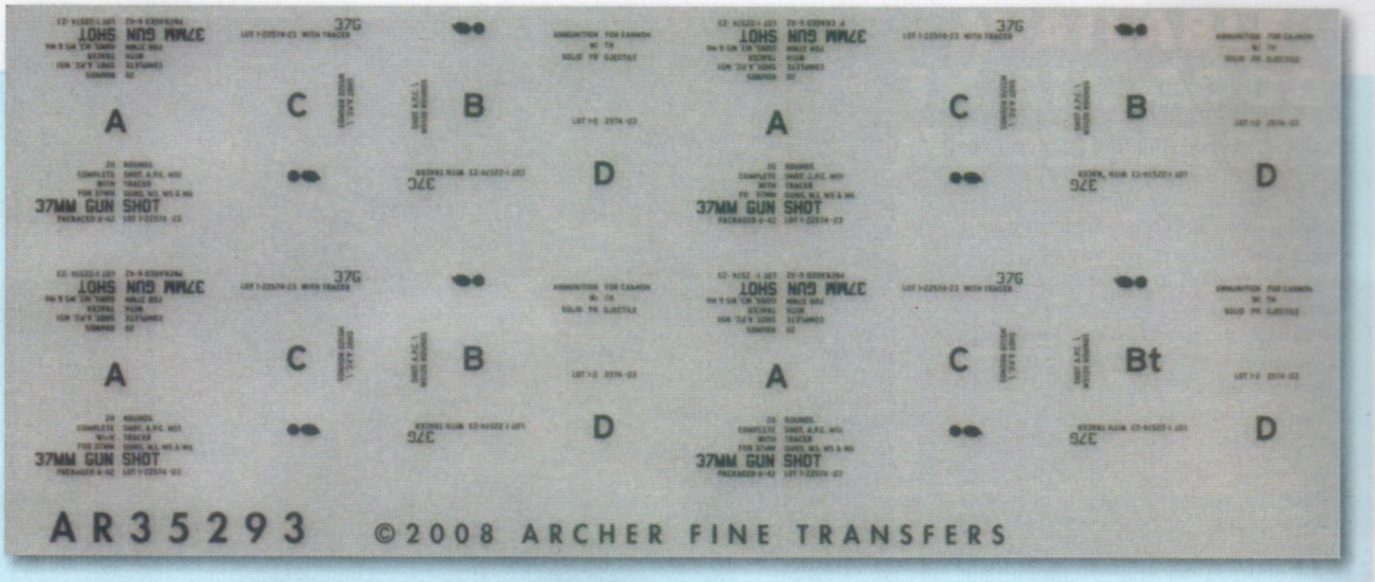
Overall, this is a good effort and while seasoned modellers can go to town adding to the kit, it is easy enough to be a first conversion project.

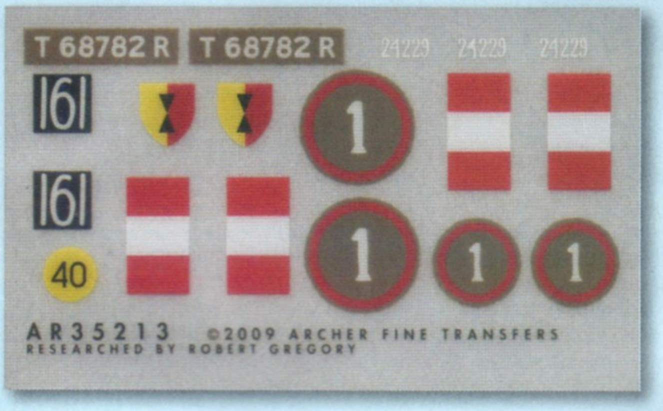
Thanks to John Geigle of Masterpiece Models for the review sample. (Note: the conversion parts are shown against an LVTP-5 deck from the AFV Club kit.)

Cookie Sewell

Price US$19.95

Masterpiece Models, 7907 NE St Johns Road, Vancouver, WA 98665; Tel: 360-256-1488, Fax: 360-573-5583; www.masterpiecemodels.com

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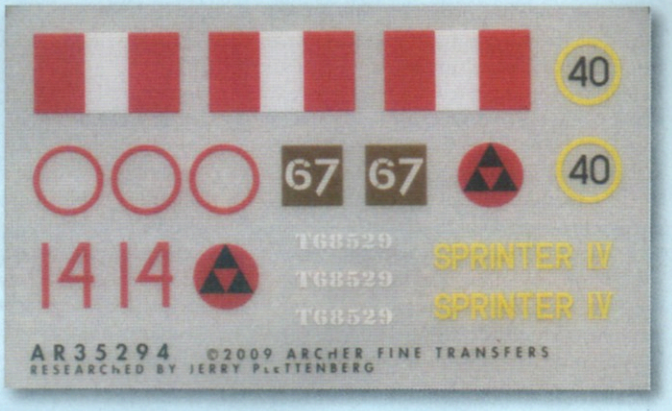
RESEARCHED BY ROBERT GREGORY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RESEARCHED BY JERRY PLETTENBERG

Archer Transfers

With the release of AFV Club's Churchill Mark III it was only a matter of time before aftermarket items became available and Archer have released two sets of transfers for it. Note that they are 'transfers' i.e. rub-down items and not 'decals' as found in kits. They can be applied direct to the kit itself with the advantage that they do not need the preparation required to get the best from water-slide decals as well as not having an 'edge' to trim off or 'silver' over time. Anyone preferring to work with decals can apply them to a sheet of decal paper, which can be bought from Archer or elsewhere.

Set AR35213 depicts a tank of the North Irish Horse serving with 25th Army Tank Brigade in Tunisia. Originally painted SCC2 brown they were repainted in G3 green, areas around markings such as tactical signs and serials being left in the base colour. Archer has copied this by printing these items on a patch of suitable colour, though items such as the red-white-red identification patches do not need these. When NIH first deployed, their tanks did not carry the usual Brigade and Arm-of-Service markings, but these have been included for completeness. Modelling notes are included on the instruction sheet which gives recommended paints and shows where each transfer should go, note that the tank covered had the early 'heavy' pattern tracks so kit ones will need replacing. Archer's website has photos of the actual tank used for the decals so things such as damage to the mudguards can be depicted if the modeller wants to be that accurate. Price is US$11.50.

Set AR25294 is for a vehicle serving with 43RTR - though this is not stated on the instructions which simply gives it as its parent 33rd Army Tank Brigade when they were with 3rd Division at the time when they were a 'Mixed Division', basically an Infantry Division with its own attached Army Tank Brigade. It is based on photos taken of their tanks on exercise in the New Forest in 1942, and a good photo of the subject vehicle named SPRINTER IV is in *Mr Churchill's Tank* by David Fletcher, also a colour plate of the tank as it was is online at the Armoured Acorn Website www.armouredacorn.com under Non Canadian Vehicle Markings part 33. These show that modellers will need to make a few changes to the basic kit, such as leaving off most of the trackguards, fitting an auxiliary fuel tank and replacing kit tracks with the 'heavy' style and side air-intakes with the cast pattern seen on earlier tanks. Both sets have the shapes of numbers and letters based on original sources, saving the modeller the work of hand-painting or trying to source suitable items from spare decal sheets or generic aftermarket sets. Either or both offer interesting alternatives to the kit decals, though as mentioned above they are not for straight out-of-the-box builds. AR25294 costs US$11.95.

Accurate labels of the contents of ammunition boxes is very important to ensure that those receiving fresh ammunition get what they want. Because of this ammo boxes come with a variety of stencils and other markings, putting these on model boxes greatly improves their appearance and accuracy.

Archer's set AR35293 provides the markings for four boxes of 20 rounds of M51 Armour Piercing Capped ammunition and designed to be used with boxes produced by CG-Laser. These are pre-cut wood items and need to be prepared before applying the rub-down transfers themselves which are laid out ready to fit the sides and ends. While I do not have any of the boxes I cannot comment on their fit, but the markings themselves are very clearly printed even if it does need a magnifying glass to see what the lettering says! They would be just right for a box of two carried on a Stuart, Lee/Grant, Greyhound or Staghound or next to a towed 37mm gun. Or as part of a re-ammunitioning diorama. Price is US$6.50 per set.

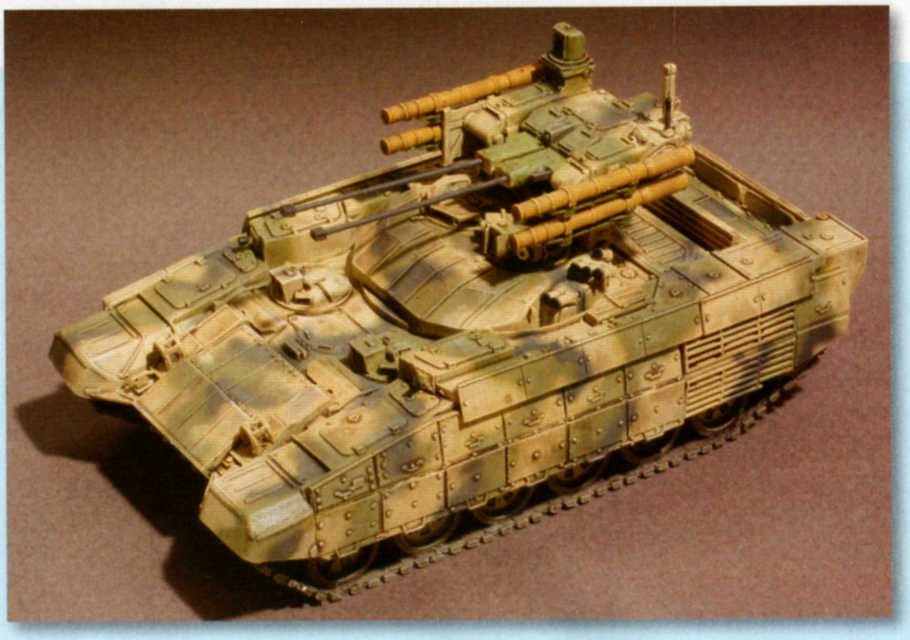
Archer items are stocked in the UK by Historex Agents, Wellington House, 157 Snargate Street, Dover, Kent CT17 9BZ. Tel: 01304 206720. Fax: 01304 204528. sales@historex-agents.co.uk www.historexagents.com and SB Models, PO Box 114, Barrow-in-Furness, Cumbria LA13 0WY. Tel/Fax: 01229 430749 sales@sbmodels.fsnet.co.uk while there are many other dealers worldwide. Thanks to Woody at Archer for sending the sets for review.

Peter Brown

Prices in text

Archer Fine Transfers, PO Box 1277, Youngsville, NC 27596-1277, USA Website www.archertransfers.com

Cromwell Models



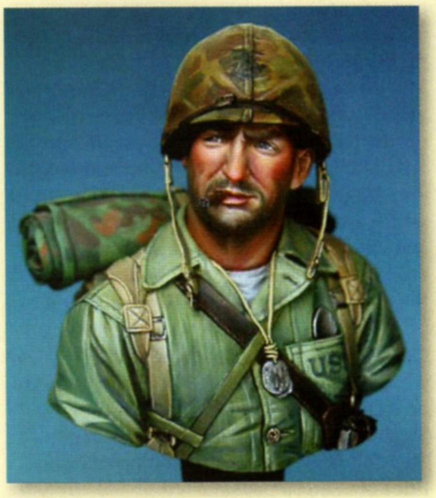
Cromwell has been offering 1:72 resin kits in their Combat Ready series besides their well known 1:76 scale offerings. Most of these are of modern types, including a range of Israeli heavy infantry vehicles. I was very pleased to see them doing the Russian BMPT, sometimes called 'The Terminator' or 'Street Sweeper'. Although its designation might lead one to suspect it is some sort of BMP infantry vehicle, in fact it is intended as a support tank (*boyevaya mashina podderzhanie tankov*: Tank support combat vehicle). In Chechnya, the Russians found that regular tanks are very vulnerable to infantry lurking with RPG and other anti-tank weapons, often on the upper stories of urban structures where the tank gun cannot reach. After trying to use thinly armed *Shilkas* for this function, designers began to work on better armoured types based on tanks. I got to climb over the pilot version when it was first displayed at a show in Ekaterinburg in 2000, and I've been fascinated with this concept ever since.

The Cromwell model represents the current incarnation of this beast, which has a modified armament package with two 30mm cannon instead of the original one. The kit is a gem of moulding. There are some moulding plugs to be removed, but assembly is quite limited including some of the small bits such as the anti-tank missiles. I spent about an evening cutting off the plugs and cleaning away some fine flash in the suspension, but assembly was quite simple. I then spent another couple of evenings painting the model in the current Russian multi-colour scheme. These Combat Ready models are a delight to assemble and paint with surprisingly high levels of detail. Besides recommending them to small scale builders, I would strongly recommend them to other modellers who might just like a change of pace. I am not a big fan of modern AFVs when building in 1:35 scale as they are so complex, but these 1:72 scale models are a lot of fun to build and paint.

Steve Zaloga

Price: on application

Cromwell Model Productions, Units N 1 & 2, Glasgow North Trading Estate, 24 Craigmont Street, Glasgow, Scotland G20 9BT. Tel: 0141-942-8596, comwellmodels@yahoo.co.uk Website www.cromwellmodels.com



Young Miniatures

Following on from the excellent bust of the US GI in the Ardennes (YM1812) that I reviewed earlier, Young Miniatures of Korea has now released a companion piece, this time a 1:10 scale bust of a member of the USMC on Iwo Jima, as Kit No: YM1813.

As soon as one reads Iwo Jima, one immediately thinks of the iconic photograph of the raising of the 'Stars and Stripes' on Mount Surabachi that, although the fighting had not ended, marked the inevitable defeat of the Japanese garrison on the island after a long and terrible battle. This latest bust, sculpted and the box top example painted by Young's talented proprietor, Young B. Song, is a pretty true reflection of the strain of the fighting. This is no clean-shaven, straight out of college all-American boy, but a tough, no-nonsense, let's get the job done and go home Marine who's done it all and seen the full horrors of war from Tarawa to Iwo Jima.

Cast in nine resin parts that are up to Young's usual high standard, once the pouring stubs had been carefully removed, a coat of Halford's plastic primer applied, it was soon ready for painting. I left off the helmet (painted it separately and fitted it later) so that I could give the face my full attention. I've said it before, but it's always worth repeating with a bust, even more so than perhaps other figure types, if you get the face right, the rest will follow. This is especially so with this bust, it's a great face and time spent on it will be well rewarded at the end. As with all busts from this company, it is recommended.

Young Miniature are available from Historex Agents, Wellington House, 157 Snargate Street, Dover, Kent CT17 9BZ. Tel: 01304 206720. Fax: 01304 204528. sales@historex-agents.co.uk www.historexagents.com

Charles Davis

Price £33 + £3.95 p&p

Young Miniatures, 693 Undae Ri, Seo-Myeon, Gyeongju-City, Gyeongbuk, Seoul, Korea. Tel: + 82 54 751 4405. Fax: 82 54 751 4402. www.young-miniatures.com young@young-miniatures.com

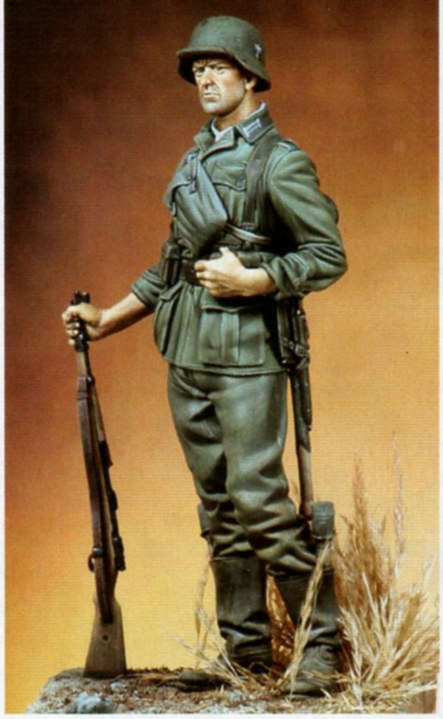
Pegaso

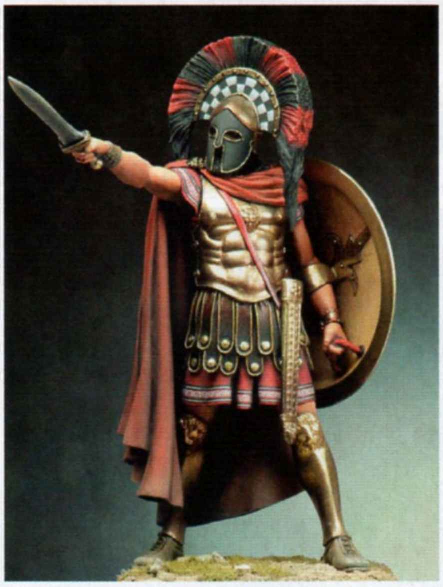
The last couple of months have been very bleak as far as the Italian firm of Pegaso has been concerned. In fact, I hadn't heard from them since Euro Militaire. I thought perhaps they were mad at me for drinking all their Grappa while clearing the hall on the Sunday evening. However, Luca Marchetti's right hand man and multi-gold winning painter, Pietro Balloni, informed me that his mentor was in the throes of becoming a father (a baby girl, named Desiree, duly arrived just before Christmas!) and the company was so busy on its return to Italy filling orders and generally trying to catch up, and then it was hit with the recession which caused further upset. So, a little while ago a parcel duly arrived, and what a parcel. It contained three 90mm foot figures, one 75mm mounted figure and 3 75mm foot figures, two fantasy figures, three busts, and three of what Pegaso calls 'Objects!' So here goes…

The first 90mm kit, 90-44, is a German infantryman from the beginning of WWII dressed in the *Feldanzug,* or campaign uniform, in 1939, although it could represent any German infantryman up to the start of the Russian campaign in 1941 as the basic campaign uniform remained the same until then. Sculpted by a new-to-me sculptor, Angel Terol, I examined it especially closely to see if he was up to the usual Pegaso standard…and he was! It has been crisply cast in 15 white metal parts with the main body and head as one part plus two arms (the right one holds the Kar 98 rifle) that went together extremely well, requiring no filler even on the shoulder joints. All the other small parts were left off to be painted and fitted later. A very good kit depicting a common soldier from Germany's Wehrmacht with all his kit. Recommended.

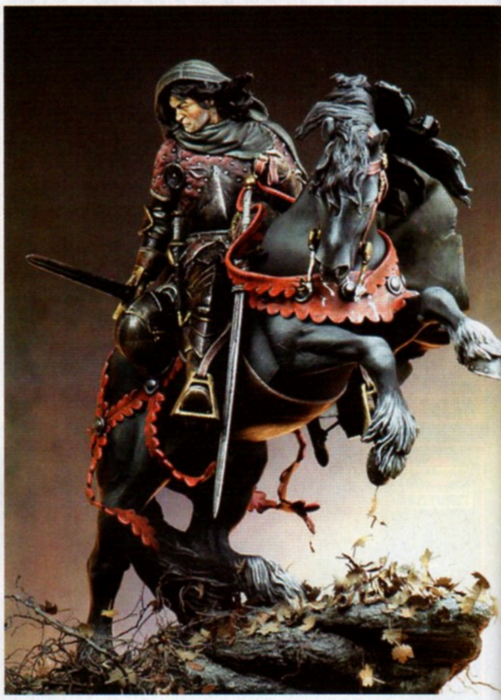
The next on the worktable, 90-45, is also from the 'Elite Series' and is a Spartan Aristocrat from the 5th Century BC. Sculpted by Gianni La Rocca and inspired by the famous Greek bronze dating from the beginning of the 5th Century BC, and possibly of Lakonian origin. The figure wears the uniform of a high-ranking warrior leader, possible Leonidas, hero of Thermopylae, Pausania, hero of Platea, or even Lysandros the victorious Athenian commander. Whatever you choose, it will be a colourful figure and very dynamic. Of course, you do not have to paint it in the same colours as the figure on the box top (although there's no reason why you can't!)

In fact, the recent book published by Periscopio Publications titled *Thermopylae* has a number of coloured illustrations that will serve as reference. I do know that both Avid Reader and Military & Aviation Books both stock the book. Anyway, the kit consists of 11 very crisply cast white metal parts. The parts fit was up to Pegaso's usual high standard (even if Snr Marchetti is overcome with joy with his new offspring, he certainly isn't letting his standards drop!). The face is left open so you can paint it before covering it with the face shield if you wish. The usual Pegaso short historical tract and painting guide is included, which gives a few suggestions for painting the figure in different colours. Lovely figure this!





The last 90mm kit for this month is a 14th century Teutonic Knight, Kit No: 90-46, sculpted by talented Andrea Jula. I must admit, I'm a bit of a sucker for knights of any period, and the Teutonic ones are around the top of the list, this one being no exception as it is so well sculpted and animated. It's very dynamic in its stance and, to me, looks like a knight should! There's a lot more pieces to this kit than the previous one, 17 in all, including the base, and all in beautiful, crisply cast white metal. The Order of the Knights of the Spedale di Santa Maria of the House of the Teutonic of Jerusalem received its name around 1220 AD. After the Christians lost the Holy Land in 1291, the Order transferred its HQ to Venice and then later to Marienburg Castle in East Prussia. All knights of the order had to be of Germanic extraction. As the parts are so intricate, I did have to use a little gap filling super glue here and there, but all things considered, it went together surprising well. I did leave some parts off until after they were painted to make assembly easier. Yes, this will do me. All three of the above 90mm kits, 90-44, 90-45, and 90-46 retail at £84.95 + £5.25 p&p.



Now for the 75mm offering, with the first one being a mounted 15th Century Roaming (!) Knight (75-902). I think they mean itinerant, mercenary or even the more romantic-sounding knight-errant. My first reaction on seeing the painted example on the box top (actually, Pegaso in their wisdom have used a collage of five views of the figure instead of the normal one) was that it was a fantasy figure and, to be honest, I can see a number of these turning up on the competition tables in the Fantasy Classes. Don't get me wrong, I love this figure and if it 'crosses over', so to speak, it's all well to the good. I do remember that a little while back that another 90mm knight, the Templar Sergeant in a cowled cloak, the fantasy enthusiasts, quickly picked up Kit No. 90-38, and some wonderful examples appeared in competition. That said, this new figure, another one sculpted by Andrea Jula (when does he sleep?) is superb. And, you get a lot of white metal for your money, there's so many parts that I'm not going to bother to count them, suffice it to say, lots … There's even a two-part base! After cleaning up the (minimal) flash I got on with fitting it all together and, to be honest, there was little to complain of during this exercise. Of course, a little judicious use of some gap-filling super glue, or other filler here and there did help to close up small gaps and add strength. I do have one reservation, having bought the 80mm Barton kit of the Napoleonic Chasseur à Cheval on a rearing horse much like this one some years back, I found that after a few months it all began to 'sag'. I realise that time has moved on and, in this case, Pegaso has added a substantial peg that includes a steel pin at the base of the horse's tail, so I have a feeling that they have looked at, and solved the problem. I do hope so! I left many of the small parts off to paint and then add to the figure later, including the wind-blown cloak and some of the horse furniture. Incidentally, the horse fitted together much better than many horses I've worked with in this, or even other scales. Brilliantly sculpted, great casting, super subject, I could go on…Highly recommended.

75-902 retails at £95.05 plus £5.25 p&p…and if this doesn't keep you occupied 'til spring pokes over your window sill…

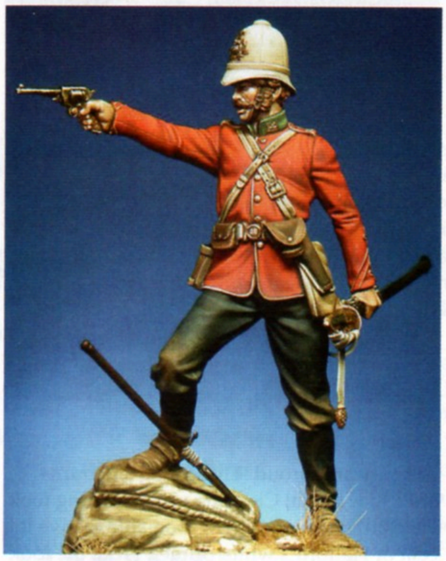
The remaining three 75'ers are all foot figures. 75- 49, is a British Colonial Officer, 1870-85, a figure from the height of the British Empire when half the globe was coloured pink and soldiers wore scarlet tunics, the men carried Martini-Henry rifles and the officers a sword and pistol and wore their sideburns long with gloriously large mustachios, and each sentence uttered was an understatement.

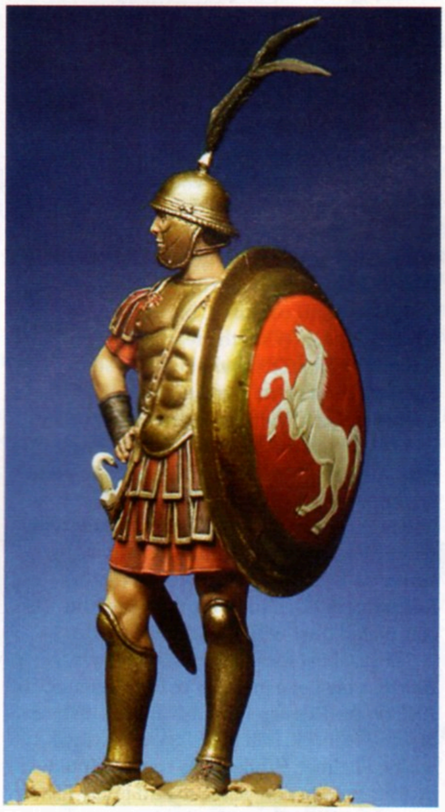
Anyway, here's our man, resplendent in scarlet tunic (these were worn until 1885 when khaki became the norm, tropical 'pith' helmet, blue breeches and boots. Well sculpted, and excitingly animated by Maurizio Bruno, cast to Pegaso's usual high standard in white metal, with 11 parts, including a very nice base complete with 'mealie bags' and an assegai, this makes up into a figure that any enthusiast of the British colonial wars will be pleased to grace his/her shelf. It went together well with a just a smidgeon of gap-filling super glue (what did I do before this wonderful stuff came on the scene?) to both strengthen and fill where necessary. Nice kit!

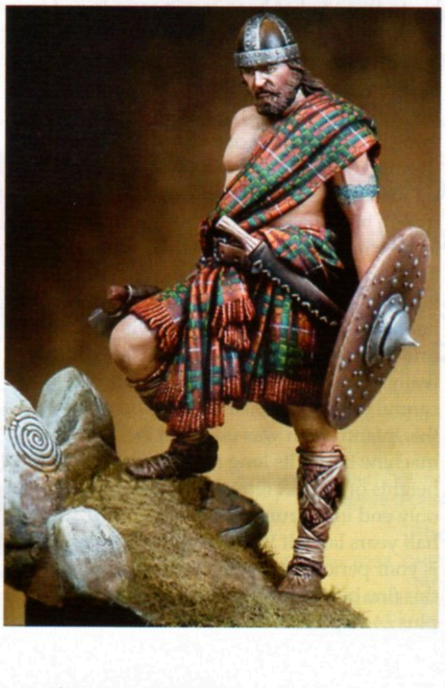
The next kit, 75-050, is from a different era and from the height of that other great empire, the Roman. It represents a Roman Tribune of the 3rd century BC sculpted by Luca Marras. The Roman uniforms of this time were influenced by the Greek culture as noted by the helmet decoration (incidentally, the helmet can be fitted with either the Greek-style crest or three high feathers handed down from Polibio, with both being supplied in the kit). He also sports the anatomical cuirass, or Lorica, and the round, Hoplite-style shield, also influenced by the Greeks. There are 12 parts cast in white metal and there are three colour illustrations on the box top, as well as a short historical tract and colour guide inside. The figure looks the part; he has an imperious stance and the long gaze of a man who knows he stands atop the world. Recommended.

The final 75 figure for this month is a fine rendition of a Scottish Highlander from the 12th-13th centuries sculpted by that man again, Andrea Jula. Looking at the model, it's no wonder the Scots couldn't raise enough men for a decent army, wandering around with hardly any clothes on, most of them would have been in bed with pneumonia or, at least, bronchitis. Having worn a kilt many times, I know that they do keep the 'nether regions' nice and warm but, come on, just a plaid over the shoulders weren't enough to keep out the icy winds blowing down the glens. Apart from that, tartans such as shown here were unknown in those times although I'm not saying there was no pattern on the woollen cloth but 'modern' tartans are a Victorian invention. OK, there's nothing wrong with artistic licence and in all other areas, the helmet, shield, axe, sword and Celtic-style tattoos, the figure is spot on.

The kit consists of a two-part base that gives the figure extra height, and 12 other parts, all in white metal. There is the usual written historical piece and a painting guide. As a lover of anything Scottish I must recommend it. Great pose. All three 75mm kits retail at £41.45 plus £4.95 p&p.





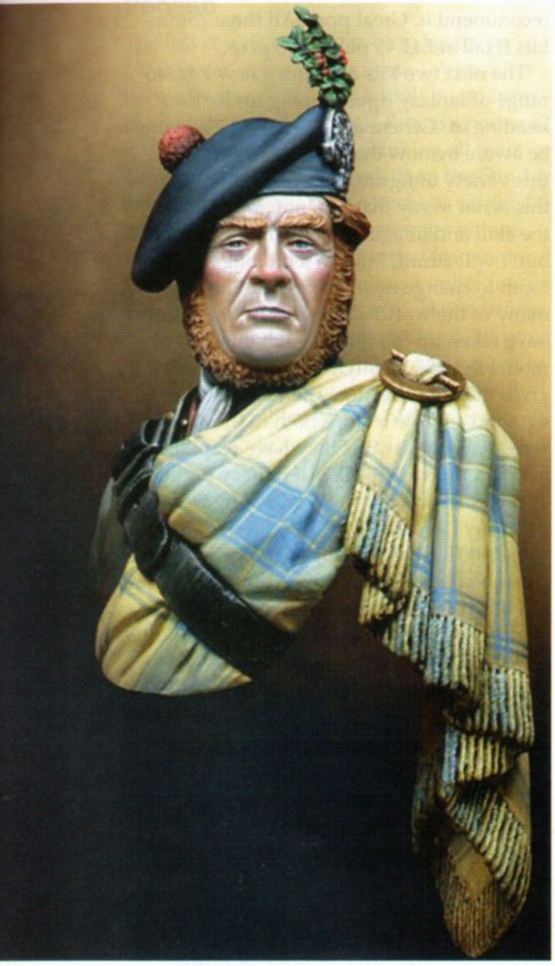


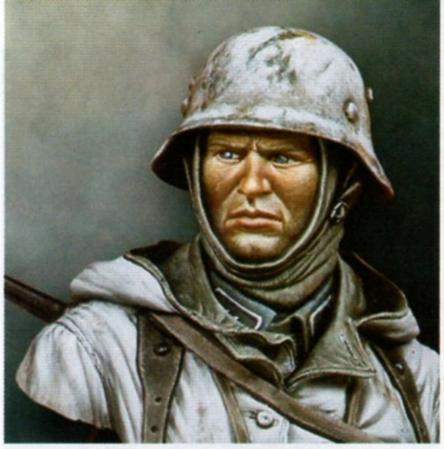
The next two kits are from a new Pegaso range of fantasy figures going under the heading of 'Gehenna, Yells of War'. You must be aware by now that I'm not *au fait* with this variety of figure modelling although this is not to say that I do not appreciate the skill and imagination behind the genre but, I will admit, I'm just a bit long in the tooth to change my allegiance. I know that many of the world's foremost figure painters have taken up the challenge of this area of model figures, mostly, I suppose because it gives them the freedom their artistic talents demand and the results, both in the artistic sense, and the awards they have reaped, have justified the switch. Also, if fantasy figures attract the young to the world of figure painting, I'm all for it.

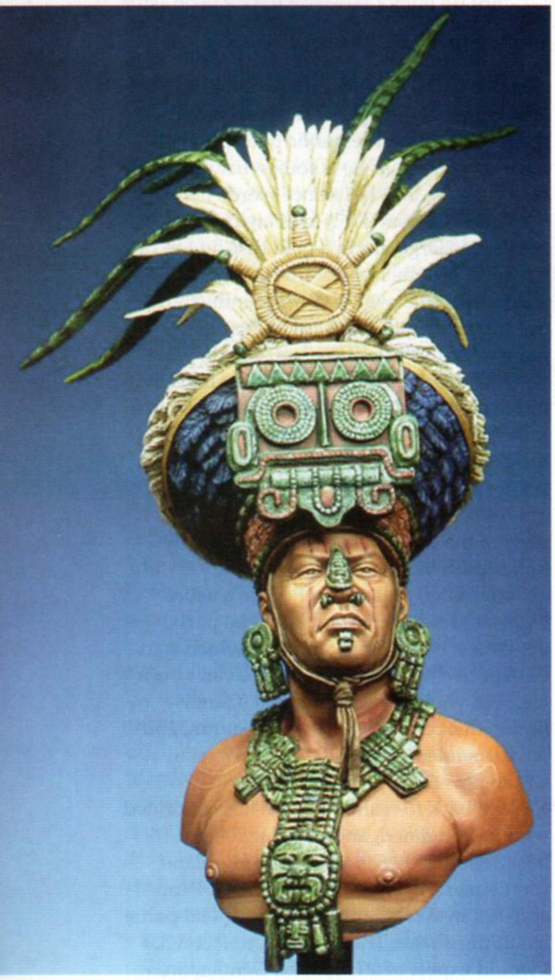
GE1-001 is Kuvar Reaper and, when assembled stands at around 70mm, which is a little bigger than the usual 1:35 scale. Sculpted by, who else but Andrea Jula (he really must do it in his sleep) and cast in white metal. It is a humanoid-type figure that is it stands on two legs, but has a head that is across between a bird's beak and a Cayman's snout. Oh, Yes, it also has wings! It is adorned with a necklace of eyeballs, and has human skulls in its belt and one in its hand. Not something you would wish to meet in a dark alley! Once again, I left off a lot of the 'bits' until after they had been painted. It required little cleaning up in the way of 'flash'. If you are into fantasy, you'll like it. Painting guide? No, there isn't one but if you think you need inspiration, the box top will help. One final point, its toenails need cutting!

The other kit, the second in the new series, is GE1-002, a Rhasva Sentinel. It is also humanoid in appearance and based, by the looks of it, on the public perception of a eunuch guard, as he is somewhat portly, Nah, he's fat, let's not mince words here! His (should I call it an 'IT'?) eyes are covered, but he has one large eye in a gold disc on top of his head. Whether or not this is a symbolic adornment (the ever watchful sentinel…) or the creature's real eye is up to the painter, remember, this is fantasy; you can do what you like. However, the miniscule wings on its back wouldn't, I'm sure lift him and his rather large ceremonial axe an inch above the ground (unless, of course, he comes from a planet far, far away with very little gravity!). I'm sure you've got the general view of the thing. It has been sculpted by Roberto Chandon (these artists really should get out more!) and cast to Pegaso's usual high standard in eight white metal parts, the largest being the main body, which is to be expected, as he is fat. If you haven't been tempted yet to try your hand at a fantasy figure, this could be the one. Great fun, and recommended. Both the GE1 series retail at £30.35 plus £3.95 p&p.

Now, back to reality! Pegaso has continued with its acclaimed, and popular 200mm bust Series. 200-16 is a bust of a Highland Gentleman. Nicely sculpted by Sean Penn and cast in six rather hefty white metal parts, including a riser. The face does reflect what I would expect of a Highland Gentleman,



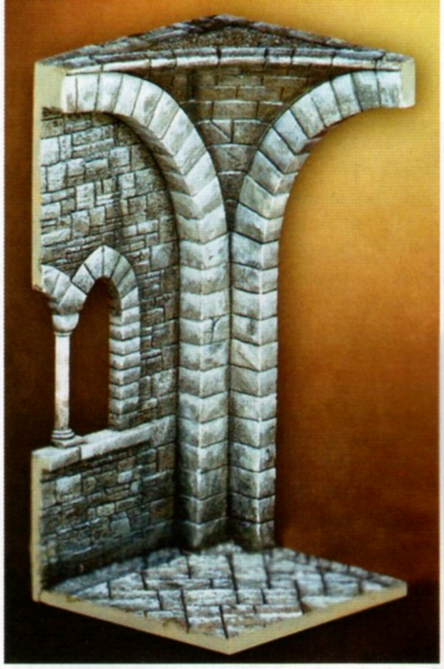


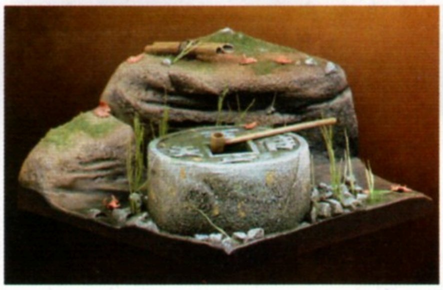


haughty and proud. Those long sideburns are a nice touch! Cleaning up the casting took very little time and I was soon able to give it a coat of Halford's white primer. From the look of him, and the tartan, I would say that he is from the late Victorian period, he could even be one of Queen Victoria's attendants. A very good kit and, as with most busts, the results are in the painting, get the face right and you'll have a lovely addition in the cabinet.

200-17 is a much more complicated affair, it is a bust, sculpted by Victor Konnov, of a Mayan Priest. Consisting of 12 white metal parts, it shows the high priest in his ceremonial headgear of gold, obsidian and lots of jade. This was further decorated with many long and coloured, but predominantly white feathers. What the feathers were actually from is somewhat of a mystery, the metal and stone parts survived but the feathers didn't, but it is surmised that they were egret tail feathers (any other views gratefully received!). There is much to paint on the figure and getting the right skin tone will be the hardest part. The end result will, without doubt, be very striking and will surely be a talking point for any visitor. Recommended, if only for the effect the completed bust will have on any visitor.

The last bust for this series of reviews is 200-18, a bust of a member of the Waffen SS in 1942 on the Russian Front because of his dress of winter smock, half balaclava and white-washed helmet. While it has been sculpted by Carl Reid (a new name to add to my list of Pegaso sculptors!), unlike the previous two busts, this one has been cast in resin in just four parts, although the base 'riser' is incorporated into the bust's main body. The head/helmet fit is perfect and the way the machine pistol fits is also very neat. The binoculars just 'plug in' on the front of the bust. I was a little disappointed with the MP40 as it was not up to Pegaso's usual crisp standard and had quite a bit of flash on it, although this was easy to remove. However, that said, after a little judicious 'fettling' and a good paint job, it looked just fine. The main body, on the other hand, was extremely well cast, with delicate undercuts and the straps look as though they really do carry weight. The face will, with careful painting, reveal the considerable strain this infantryman was under as the Nazi war machine began its long retreat after the heady heights of 1941. A retreat, moreover, that would only end in the ruins of Berlin just two and a half years later. If WWII and the German army is your period, you won't be disappointed with this fine bust. All three busts retail at £48.55 plus £4.95 p&p.





The final two offerings from Pegaso are from its Pegaso Objects range. You will remember that these are diorama or vignette accessories that assist in setting the tone of your model display. The first one, ASM-31, is a Japanese Well sculpted by Christos Apostolopoulos and cast in four resin parts, two large and two small delicate ones. With these 'Objects' a picture is worth a thousand words. All I can say is, they are flash free, crisp castings and, in this case, will add that extra 'something to a Japanese scene, either ancient or modern. ASM-31 retails at £20.20 plus £2.95 p&p.

The other Pegaso Objects is a Castle Corner, ASLO 32, sculpted by Mario Buoninconti and crisply cast in four pretty substantial pieces of resin. It will make an excellent 'frame' for a knight figure, or any other Western figure of almost any period for that matter. I will admit that after taking both kits out of their boxes, for the moment, I have nothing to put with either of them. However, 'PegasObjects' are among those kits that go into the 'stash' because, sooner or later you just know they will be 'just the ticket' and I won't have to send off for one and have to wait to complete a planned vignette to enter in the next club show. I have found all the 'PegasObjects' to be beautifully sculpted and crisply cast. ASLO retails at £25.30 plus £2.95 p&p.

All the above kits are available from Historex Agents, Wellington House, 157 Snargate Street, Dover, Kent CT17 9BZ.
Tel: 01304 206720. Fax: 01304 204528.
sales@historex-agents.co.uk
www.historexagents.com

Charles Davis

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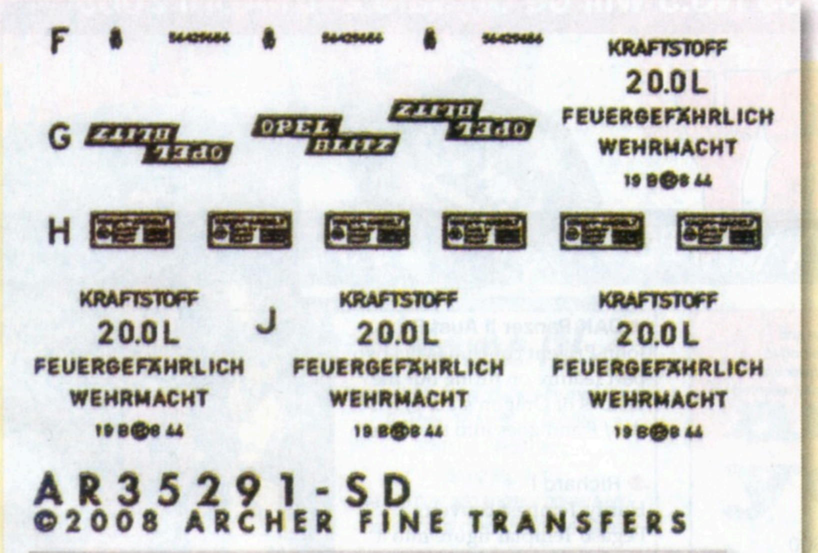
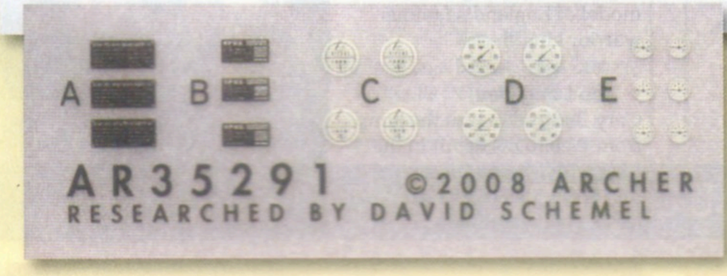
Pegaso Models srl, C.P.n. 99 Siena Centro, 53100 Siena, Italy. pegasomodels@si.nettuno.it
www.pegasomodels.com





Archer Transfers

New items in Archer's serious of gauges and markings for vehicle kits cover two Tamiya 1:35 scale German trucks, one for a relatively new kit and one for an older item. Although printed in Archer's usual style as rub-down transfers they have to be made into a form of decal for application, for which a small sheet of Wet Media paper is included. This is not the same as conventional kit or aftermarket decal paper as it has no 'film' as such. With the items rubbed down the modeller has to dip each into water, wait for it to float free and put it in its proper place.

Set AR35291 is designed for Tamiya's 'German 3ton 4x2 Cargo Truck' though Archer identify it as an Opel Blitz. Transfers include various dials such as the speedometer as well as instruction labels and vehicle identification plate. These items are not simply coloured blobs in a suitable pattern, but they can really be read though it would need good eyesight or a magnifying lens to read them. Enough items are included for at least three vehicles or at least there are three sets of labels though there are four sets of dials. In addition there is a separate sheet of raised detail items using resin printed onto a backing sheet. This includes three OPEL BLITZ badges for the radiator, three sets of raised casting markings for the rear axle, six instruction panels for the jack and what appear to be embossed markings for the end of 20L fuel drums though these are not included on the instruction sheet for some reason. Price US$7.95.

Set AR35292 covers the Krupp Protze for Tamiya's kit no. 35259. Again enough dials are provided for three kits with four sets of data plates, including alternatives for the kit as is or a more accurate depiction which requires the kit placard to be filed away. Standard of detail is as good as the Blitz set, however, in this case no resin items are provided. Price is US$6.95. In both cases full instructions of how and where to apply each item are included, as well as details of how to depict lenses over the dials using five-minute epoxy.

Archer items are stocked in the UK by Historex Agents, Wellington House, 157 Snargate Street, Dover, Kent CT17 9BZ. Tel: 01304 206720. Fax: 01304 204528.
sales@historex-agents.co.uk
www.historexagents.com and SB Models, PO Box 114, Barrow-in-Furness, Cumbria LA13 0WY.
Tel/Fax: 01229 430749 sales@sbmodels.fsnet.co.uk
while there are many other dealers worldwide. Thanks to Woody at Archer for sending the sets for review.

Peter Brown

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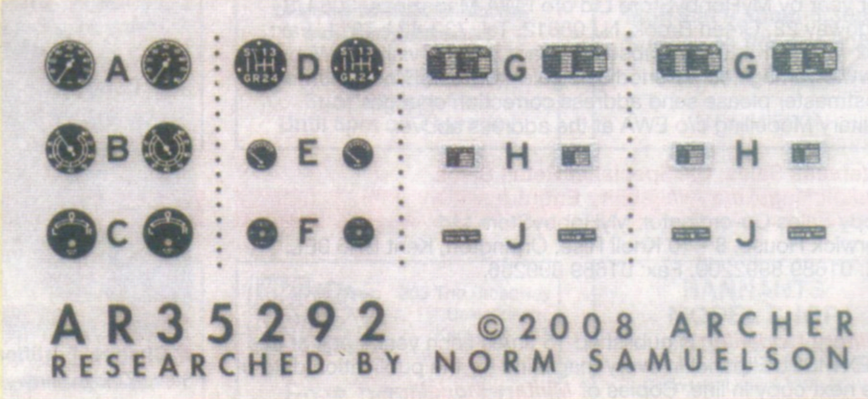
Archer Fine Transfers, PO Box 1277, Youngsville, NC 27596-1277, USA

Website www.archertransfers.com



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